

# A

## **A-frame**

*Texworld*

A movable batching unit, in which a horizontal roller is supported by two A-shaped frames. The unit is used to wind fabric in beam form for either storage or wet processing.

*Whitneyblanketstory.org.uk*

A moveable batching unit, in which a horizontal roller about 20 inches in diameter is supported by two A-shaped frames.

*Wikipedia*

An A-frame is a basic structure designed to bear a load in a lightweight economical manner. The simplest form of an A-frame is two similarly sized beams, arranged in a 45-degree or greater angle, attached at the top. These materials are often wooden or steel beams attached at the top by rope, welding, gluing, or riveting.

## **A-glass**

*acmanet.org/pic/products/glossary.htm*

A soda-lime glass similar to window or bottle glass with generally poorer chemical and water resistance than E glass. Used primarily as a surface mat on pultrusions.

*Polymer Technology Dictionary, by Tony Whelan*

A type of soda lime glass which is relatively cheap. Also known as alkali glass, or window glass. Has relatively poor chemical resistance to, for example, to hydrolysis, and refractive index which cannot be easily matched to that of unsaturated polyester resins – this means that sheeting of good quality cannot be made. The percent composition of weight is approximately SiO<sub>2</sub> – 72,0%, Al<sub>2</sub>O<sub>3</sub> – 0,6%, CaO – 10,0%, MgO – 2,5%, Na<sub>2</sub>O – 14,2%, and B<sub>2</sub>O<sub>3</sub> – 8,0%. Not widely used as fibrous reinforcement.

## **A la mode**

*Answers.com*

According to the prevailing style or fashion.

*haute couture jargon*

in fashion; fashionable look; funky; in vogue; in style. cf. démodé.

## **A-line, A-line dress**

*Apparesearch*

a dress or skirt that is formed into the shape of an A, tight fitting at the waist and open at the bottom. This flattering silhouette is easy and comfortable to wear. It flares gently away from the body creating a soft, A-line shape. Fit for any body.

*Dressking*

Form fitting bodices that flare out from the waistline to a full skirt. These gowns have a seamless waist.

*Fashion, fibre and cloth. glos.*

A skirt that is fitted at the waist and flares out in an A-line or tulip shape at the hem.

*Geocities.com*

A design commonly used in female clothing. It is a cut of plain garment consisting basically of two “A”-shaped panels for the front and back, designed to give increasing fullness towards the hemline. Generally used for dresses and coats.

*haute couture jargon*

dress or skirt silhouette that flares from bust or waist to form in the shape of the letter A; semi-fitted dress style that is closely-fitted at the bust, then flares out in a more relaxed fit over the waist and hips to a semi-full hemline. cf. drape, empire line, cut.

*Mollybloom*

Form-fitting bodice that flares out from the waistline to a full skirt, resembling the letter A in design. The term was coined by Christian Dior.

*mysuitshop*

A term coined by Christian Dior to define a dress, coat or top that is close at the shoulders and gently flared at the hemline, resembling the letter A in design.

*women's fashion*

A dress or skirt silhouette that is narrower at the top, flaring gently wider toward the bottom thereby resembling the letter A. Works well on most figure types; good for disguising bottom-heavy figures.

### **A-line coat**

*Probert*

An A-line coat is a woman's coat with narrow shoulders widening continuously towards the hem, so that its outline resembles a letter A. A-line coats were popular in Britain during the 1950's and were revived with modifications in the 1960's.

### **A-line skirt, Fit-and-flare skirt**

*About.com*

A dress or skirt silhouette that is narrower at the top, flaring gently wider toward the bottom thereby resembling the letter A. Works well on most figure types; good for disguising bottom-heavy figures.

*Dressking*

A skirt that is fitted at the waist and flares out in an A-line or tulip shape at the hem.

*Probert*

An A-Line skirt is a simple tapering skirt that follows the approximate shape of a letter 'A', with a waist that is narrower than the hem.

### **A-shirt**

*vintageskivvies.com/pages/archives/glossary/a-i.html*

An athletic (or sleeveless) undershirt, usually made of ribbed or flat knitted fabric. Also called a tank top, especially when worn as an outer garment. Originally called an athletic shirt due to the freedom of movement facilitated by the sleeveless design.

*Wikipedia.org*

A-shirt or construction shirt or singlet (in British English) — essentially a sleeveless t-shirt with large armholes and a large neck hole, often worn by labourers or athletes for increased movability. Sometimes called a "wife beater" when worn without a covering layer.

### **A-stage**

**A- stanje, A-stadij, Stanje A**

*Fiberset.com*

The slope of the line at any point on a static stress-strain curve expressed in psi per unit strain. This is the tangent modulus at that point in shear, extension, or compression as the case may be.

*Npteliitm.ac.in*

An early stage of polymerization of thermosetting resins in which the material is still soluble in certain liquids and is fusible. It is also called resole.

*oldnc.3dn.ru/Docs/Harper.C.A.Plastics\_Materials\_and\_Proc-s.pdf*

The A-stage is the earliest stage in the reaction of a thermosetting resin in which the materials are still soluble in certain solvents and fusible. It is often the stage in which the resin, the hardener, and all other components are present and mixed together, yet no or very little crosslinking has taken place. In the A-stage the resin formulation is generally a thick liquid or flowable paste, but all the constituents are present to fully cure the resin.

*Struna – Hrvatsko strukovno nazivlje - Polimeri*

Prva faza stvaranja duromernih materijala u kojoj je duromerni pretpolimer još uvijek taljiv i topljiv u određenim kapljevinama.

## **AAMA**

*Academyoftextilesandflooring*

Acronym for the American Apparel Manufacturers Association

*apparelandfootwear.org/AboutAAFA/HistoryandMission.asp*

The AAMA was founded in 1960 as the national association representing U.S. apparel manufacturers. Though many believed the industry was too fragmented to make this possible, leaders of the Southern Garment Manufacturers Association forged ahead and, together with the National Association of Shirt, Pajama and Sportswear Manufacturers, formed the American Apparel Manufacturers Association – an organization that represented every segment of the industry, regardless of company size, location, product line or type of distribution. AAMA's mission was to help create an environment in which the U.S. apparel industry could operate competitively and profitably in a global economy.

## **AATCC (American Association of Textile Chemists and Colorists)**

*atron capet and fibres*

A widely recognized association whose work focuses on development of standards of testing dyed and chemically treated fibers and fabrics.

*Brentanofabrics.com*

Founded in 1921, the AATCC is the world's leading not-for-profit professional association for the textile design, materials, processing and testing industries. AATCC has thousands of individual and corporate members in more than 60 countries. The Association is internationally recognized for its standard methods of testing dyed and chemically treated fibers and fabrics to measure and evaluate such performance characteristics as colorfastness to light and washing, smoothness appearance, soil release, shrinkage, water resistance, and the many other conditions to which textiles may be subjected.

## **AATT**

*Academyoftextilesandflooring*

American Association for Textile Technology, Inc. A national technical society, incorporated in New York state, whose members are qualified textile technologists engaged in development work, research operations, and testing in the field of yarns, fabrics and finishes. The objective of this association is to encourage mutual understanding in the fields of textile technology and marketing; the advancement of textile technology in all its branches; cooperation with established facilities for textile education; and the interchange and dissemination of professional knowledge among its members and with other industry groups.

## **Ab initio**

*Englesko-engleski glosar poslovnih termina, finansija i nekretnina, T.Popović*

From the beginning. Can mean that breaking some terms in a long-running contract results in the contract having been broken from the start.

### **Aba (also Abaya, Abba)**

*Academic dictionary of textiles, by Vinay Kumar*

A fabric woven from the hair of camels or goats. A loose sleeveless outer garment worn by traditional dress in the Middle East.

*Alcollector*

a Syrian cloth of goat's or camel's hair, usually striped; an outer garment made of this cloth; or a covering outer garment, usually black, worn by women in some Arab countries.

*Associated content*

Aba is a fabric woven from goat hair and camel hair. The aba cloth s used for making loose sleeveless outer garments commonly worn by the Arabs.

*fabric names*

garment of camel or goat hair; camel or goat-hair fabric

*fibre2fashion*

a loose cloak, possibly of Arabian origin. Related to the jama in men's wear, and to the abbo (q.v.) In women's.

*HAND BOOK ON GLOSSARY OF TEXTILE TERMS, BUREAU OF INDIAN STANDARDS  
NEW DELHI 110 002, UDC 001.4/677 (021) ISBN 81-7061-009-5*

Sleeveless outer garment, made from camel or goat hair, worn by Arabs.

### **Abaca**

*Beloved linens*

Incorrectly called Manilla hemp. Fibre commonly used in the Philippines. Fibres are tied end to end and woven without spinning.

*E-textil*

This vegetable leaf fibre is derived from the *Musa textilis* plant. It is mainly grown in the Philippines but is also found, in smaller amounts, in Africa, Malaysia, Indonesia and Costa Rica. The fibre is obtained from the outer layer of the leaf. Processing occurs when it is separated mechanically decorticated into lengths varying from 3 to 9 feet. Abaca is very strong and has great luster. It is very resistant to damage from salt water.

*Encyclopedia Britanica*

plant of the family Musaceae, and its fibre, which is second in importance among the leaf fibre group. Abaca fibre, unlike most other leaf fibres, is obtained from the plant leaf stalks (petioles). Although sometimes known as Manila hemp, Cebu hemp, or Davao hemp, the abaca plant is not related to true hemp.

*Fida*

Abaca fiber , known worldwide as Manila hemp, is obtained from the leafsheath of the abaca, *Musa textilis* Nee and is considered as the strongest among natural fibers. The length of the fiber varies from three to nine feet or more, depending on the height of the plant and the age of the leafsheath. The color of the fiber ranges from ivory white to light and dark brown.

*Fashion, fibre and cloth. glos.*

A vegetable leaf fiber derived from the *Musa textilis* plant. It is mainly grown in the Philippines but is also found, in smaller amounts, in Africa, Malaysia, Indonesia and Costa Rica. The fiber is obtained from the outer layer of the leaf. Processing occurs when it is separated mechanically into lengths varying from 3 to 9 feet. Abaca is very strong and has great luster. It is very resistant to damage from salt water.

*Greengeneration.co.uk*

Abaca is a species of banana plant. Abaca's large leaves and stems are harvested for its fiber, and used in making clothing and textile goods. A sustainable alternative to cotton.

*Interior Textiles: Design and Developments, edited by T Rowe*

Abaca fibre is obtained from an evergreen, perennial tropical plant called fibrous banana. The fibre is often known as manila. The plant is commonly cultivated in Philippines, and also on Java, Sumatra and Borneo, and in the countries of Central and South America. In order to obtain the fibre, the plant trunks are cut as low as possible. Fibre extraction should take place within 48 hours of cutting the plant, otherwise the fibre strength decreases and its colour changes. The fibre is used for plaiting, thick fabrics, fishing nets, sails, ship ropes, paper, tea and coffee bags, disposable fabrics and boards used in construction. The diameter of elementary fibres is about 10 - 30  $\mu\text{m}$ .

*Weavers.org.uk*

*Musa textilis*. Abaca is a similar plant to banana. Abaca, banana, sisal and manila hemp are all leaf fibres. The length and thickness of the fibre normally indicates the strength of these fibres. Each is different and are used for a variety of different uses. Abaca produces a fine white fibre, similar, but longer than sisal. This fibre is extracted from the inner leaf sheath, which forms the trunk of the abaca plant. The outer leaf sheath is removed in the form of 'tuxies' which are stripped to recover a coarse cream to brown fibre.

*Wigglesworth fibres*

When mature the abaca plant consists of about 12 to 30 stalks radiating from a central root system. Each of these stalks is about 12 to 20 feet high and the fibre is stripped from the stem rather than the leaf, with each stalk being cut into sheaths and then strips or "tuxies".

The strips are then scraped (i.e. either hand or machine "decorticated") to remove the pulp, then sometimes washed and dried. The outer leaves of the plant are wider and contain more but coarser fibre than the inner leaves. Harvesting of the stalks usually takes place between 18 and 24 months from the first shoots. The abaca plant to the untrained eye, can easily be mistaken for the banana plant - without the fruit.

*Wikipedia*

Abacá, from Spanish "abacá" or *Musa textilis*, is a species of banana native to the Philippines, grown widely as well in Borneo and Sumatra and Ecuador. It is sometimes referred to as "BacBac". The plant is of great economic importance, being harvested for its fibre, once generally called Manila hemp, extracted from the leaf sheath around the trunk. On average, the plant grows about 20 feet (6 meters) tall. The fibre was originally used for making twines and ropes as well as the Manila envelope; now most abaca is pulped and used in a variety of paper-like products including filter paper and banknotes. It is classified as a hard fibre, along with coir, henequin and sisal. The plant's name is sometimes spelt Abaká.

Abacá was first cultivated on a large scale in Sumatra in 1925 under the Dutch, who had observed its cultivation in the Philippines for cordage since the 1800s, followed up by plantings in Central America sponsored by the U.S. Department of Agriculture[1].

Commercial planting began in 1930 in British North Borneo; with the commencement of WWII, the supply from the Philippines was eliminated by the Japanese[1].

Other common names for abaca or Manila hemp include "Cebu hemp" and "Davao hemp".

## **Abadeh**

*Alcollector*

Persian carpets from southern Iran, brightly coloured, often incorporating a stylized tree of life, lozenge patterns and stick-like animal and human figures.

*carpetvista.com/carpets/Abadeh/carpet\_75545-Abadeh.html*

This is a very attractive and durable carpet woven in the village of Abadeh in southwestern Persia. The pattern is influenced by nomads and usually consists of a hexagon in the middle

containing a rosette or a medallion. A good bargain since the carpet retains its value for a long time. This carpet is hand knotted; therefore, difference in shape, pattern and sizes can occur.

*Wikipedia*

An Abadeh carpet is similar in appearance to a Qom carpet but is usually thicker and coarser. Abadeh is closer to a Shiraz. Qom is a city carpet but Abadeh is far less sophisticated.

### **Abassi fibre**

*resil.com/c.htm*

A variety of Egyptian cotton. Pure white, about 3cm long brilliant staple of good quality.

### **Abatement**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

The waste produced when a piece of material, such as metal or timber, is carved or shaped

*businessdictionary.com/definition/abatement.html*

Elimination or reduction of polluting or hazardous substances (such as asbestos) by either removing them completely or lessening their effect through better waste management.

*healsfang.com/infoleatherterms\_a.html*

Reducing the quantity or toxicity of waste being generated by modifications to the process and by recycling.

*Iultcs.org*

Reduce the quantity or toxicity of waste being generated by modifications to the process and by recycling.

*nsc.org/ehc/glossary.html*

Reducing the degree or intensity of, or eliminating, pollution.

### **Abaya**

*Apparelsearch*

An abaya is a women's garment worn in Saudi Arabia, and sometimes other places in the Persian Gulf region. It is a long-sleeved, floor-length, loose, usually black, garment worn over other clothing when a woman leaves the protection of home. It is worn with a headscarf (hijab) and sometimes with a veil (niqab).

*Islam clothing*

A type of outer garment that covers the head and body; it is all but shapeless.

*Probert*

An abayah (also known as an aba or abba) is a simple. Usually striped, loose, sleeveless outer garment worn in North Africa, Arabia, Turkey and Iran. The standard abayah is made of a coarse woollen fabric, refined versions of silk are also worn by the very wealthy.

*Thisisnorthafrica*

A black covering which drapes over the head, covering the forehead but revealing the rest of the face. It extends to floor-length and has wrist-length sleeves.

*Wikipedia*

The abaya is an overgarment worn by some women in parts of the Islamic world. It is the traditional form of hijab, or Islamic dress, for many countries of the Arabian peninsula such as the United Arab Emirates, where it is the national dress. Traditional abayas are black, and may be either a large square of fabric draped from the shoulders or head, or a long caftan. The abaya covers the whole body except the face, feet, and hands. It can be worn with the niqab, a face veil covering all but the eyes. Some women choose to wear long black gloves, so their hands are covered as well. Saudi Arabia requires women to cover in public. Covering is enforced by the religious police, the mutaween (also known as the 'mutawa'). In Iran the cover

is often referred to as a chador. Some Muslim women living in the West also cover themselves as part of their religion and culture. Abayat are known by various names but serve the same purpose, which is to cover. Contemporary models are usually caftans, cut from light, flowing fabrics like crepe, georgette, and chiffon. Styles differ from region to region: some abayat have embroidery on black material while others are brightly coloured and have different forms of artwork across them.[1]

### **Abb wool**

*Academic dictionary of textiles, by Vinay Kumar*

Low grade wool from the breech or outer edge of a fleece.

*Academyoftextilesandflooring*

(1) Skirting or edgings obtained by the sorter in trimming the fleece for the wool trade. (2) Merino clothing warp wool, being skirted from the britch. (3) Short wool taken from the britch and cow-tail skirts of English and coarse fleeces used mostly for warp.

*Dry goods*

In wool-sorting one of the two qualities known as coarse abb and fine abb; the lowest quality of wool used in the spinning of worsted yarns.

*Wictionary*

Wool for the warp.

### **Abbé refractometer**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

An optical instrument used to determine the refractive index of a liquid, consisting of two glass prisms, between which a liquid film is clamped, and the angle of total internal reflection is measured.

### **Abbé theory**

#### **Abbeova teorija**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Teorija razlučivanja optičkoga mikroskopa temeljena na ogibu svjetlosti na preparatu**

### **Abbot**

*resil.com/c.htm*

Also called Monk's cloth. A heavy, rough surfaced, hardwearing, loosely woven, basket weave fabric in solid colours. Sometimes stripes or plaids are woven into the fabric. Made of cotton or linen. It tends to lose shape under pressure, due to the looseness of weave. Use confined to curtains, loose covers, etc

### **Abbot-Cox process**

#### **Abbot-Coxov postupak**

*Encyclopedic dictionary of named processes in chemical technology, by Alen E. Comnis*

A method of applying vat dyes to cellulosic textiles in package form. The dispersed dye, with a dispersing agent, is circulated through the package. The dye becomes substantially transferred to the material by the gradual addition of an electrolyte such as sodium sulfate. When the dye has been transferred to the fabric, it is reduced in situ. The color is restored by a mild oxidizing agent such as hydrogen peroxide.

### **Abbotsford**

*resil.com/c.htm*

Dress-weight fabric with muted check design. One side is slightly napped. Usually made from cotton, wool, viscose, modal or acrylic

## **Abdig**

*resil.com/c.htm*

A plain weave dress fabric made with cotton warp and a wool filling.

## **Abelmoschus fiber**

*Dictionaryoftext00*

similar to jute called rai bhenda in India. It is laugh and does not rot in water; used for ropes.

*ibiblio.org/pfaf/cgi-bin/arr\_html?Abelmoschus+esculentus*

A fibre obtained from the stems of *Abelmoschus esculentus* is used as a substitute for jute[57, 61, 74, 169]. It is also used in making paper and textiles[171]. The fibres are about 2.4mm long[189]. When used for paper the stems are harvested in late summer or autumn after the edible seedpods have been harvested, the leaves are removed and the stems are steamed until the fibres can be stripped off. The fibres are cooked for 2 hours with lye and then put in a ball mill for 3 hours.

## **Abercrombie**

*ceca fabric glossary*

a Scottish tartan characterized by a blue and black ground and a green and white overcheck

*Dictionaryoftext00*

A highland tartan, having a blue and black ground, crossed with green stripes forming double green checks, the green stripes being split by a white line.

*resil.com/c.htm*

Scottish tartan fabric woven with a blue and black ground and green and white over-check. Medium weight, usually not heavy enough for outerwear. Originally all-wool, but now may contain a proportion of polyester or acrylic fibre. Used for kilts, pleated skirts, bias-cut skirts, pinafore dresses, children's clothes.

## **Aberdeen**

*resil.com/c.htm*

A yarn size numbering system for heavy yarns of wool, jute, etc. now used only occasionally.

## **Aberration, Abberance**

### **Aberacija, Izobličenje**

*Polymer Technology Dictionary, by Tony Whelan*

A deviation from the normal or typical; usually used to mean the blurring or distortion of an image by a lense or mirror. In optics, it means that light rays cannot be brought to a sharp focus. See – Chromatic aberration.

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**iskrivljenje slike koje nastaje zbog nesavršenosti leće ili drugoga optičkog sustava.**

## **Abestrine**

*resil.com/c.htm*

A fabric name that may be applied to cloth made of asbestos.

## **Abherent**

*vidi*

## **Antiblocking agent**

## **Abhesion**

### **Abhezija**

*Polymer science dictionary, by Mark S.M.Alger*

The reduction of adhesion to a solid surface caused by a presence on that surface of a layer of an anti-stick material, such as fluorocarbon, of low surface tension



**Abhesive**

*Encyclopedic Dictionary of Polymers, Volume 1 edited by Jan W. Gooch*

Material that resists adhesion, applied to surfaces to prevent sticking, heat-sealing etc.

**Abho**

*fibre2fashion*

a loose shirt-like garment, worn by women mostly in Gujarat and Rajasthan. The garment was generally worn with short, wide sleeves, open at the neck, loose-fitting on the upper part and really flared in its skirt. Often decorated with embroidery and mirror-glass work.

**Abietate**

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

Esters or salts of abietic acid, a principal constituent of ordinary rosin from which the products of commerce are derived, no attempt being made to separate abietic acid from the other acids which rosin is likely to contain. Esters of rosin are described as abietates and include the methyl, ethyl and benzyl derivatives, which are used chiefly as plasticisers.

**Abietic acid**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

$C_{19}H_{29}COOH$ . White monoclinic plates that are insoluble in water and soluble in alcohol and dilute sodium hydroxide, melting at 173-174°C, and boiling at 250°C (at low pressure). Used in varnish manufacture, in esters for plasticisers and in soaps.

*Encyclopedic Dictionary of Polymers, Volume 1 edited by Jan W. Gooch*

$C_{19}H_{30}COOH$ . A monocarboxylic acid derived from rosin. Plasticisers derived from it include hydrobietyl alcohol, hydrogenated methyl abietate and methyl abietate.

*Glossary of Rubber and Rubber-like Materials, ASTM publication, Philadelphia 1956*

The principal constituent of rosin or colophony. Its molecular formula is  $C_{20}H_{30}O_2$ . Melting point is 170-174°C. It is a softener of natural rubber, but gives poorer ageing.

*Polymer science dictionary, by Mark S.M. Alger*

The major, about 90%, component of commercial rosin, whose structure is related to phenanthrene. The pine oleoresin, from which rosin is produced by distillation, contains the isomeric acid (laevopimaric acid) which is converted to abietic acid by the heat treatment during distillation. Simple esters, e.g. methyl abietate, are useful plasticisers, while more complex ones, e.g. of glycerol, form the ester gums. When rosin is used as a modifier in alkyd resins, it is active in ester exchange.

**Ablation**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

The loss or removal of material by an erosive process, such as melting or vapourisation, especially the intentional removal of material from a nose cone or spacecraft in order to provide thermal protection during reentry.

*ASM materials engineering dictionary, by Joseph R. Davis*

A self-regulating heat and mass transfer process in which incident thermal energy is expended by sacrificial loss of material.

[composite.about.com/library/glossary/a/bldef-a12.htm](http://composite.about.com/library/glossary/a/bldef-a12.htm)

An orderly heat and mass transfer process in which a large amount of thermal energy is expended by sacrificial loss of surface region material. The heat input from the environment is absorbed, dissipated, blocked and generated by numerous mechanisms. The energy adsorption processes take place automatically and simultaneously, serve to control the surface temperature, and greatly restrict the flow of heat into the substrate interior.

*Encyclopedic Dictionary of Polymers, Volume 1*, edited by Jan W. Gooch

Highly endothermic decomposition and adsorption of energy at the surface of a material, which slows the penetration of high temperature to the interior. In other words, it is the ability of a material, such as polymer, to form a protective thermal layer when carbonised to extreme heat.

*Environmental Engineering Dictionary*, edited by C. C. Lee

The rapid reduction of particles by means of a focused laser or some other aggressive means.

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

The process of wearing or wasting away of the surface of an object by erosion, melting evaporation or vapourisation. Vidi – Laser ablation.

*Polymer science dictionary*, by Mark S. M. Alger

The sacrificial loss of material when used as a heat shield. The loss is due to decomposition and volatilisation caused by heating. Thermal protection is provided by the material acting both as a heat sink (the loss process being endothermic) and as a thermal insulant.

*Polymer science dictionary*, by Mark S.M. Alger

The sacrificial loss of material when used as a heat shield to protect space vehicles during re-entry to the atmosphere. The loss is due to decomposition and volatilisation, caused by the frictional heating in the upper atmosphere. Thermal protection is provided by the material acting both as a heat sink (the loss process being endothermic) and as a thermal insulant.

[spiderbites.about.com/links/detail\\_composite\\_1.htm](http://spiderbites.about.com/links/detail_composite_1.htm)

An orderly heat and mass transfer process in which a large amount of thermal energy is expended by sacrificial loss of surface region material.

*Whittington's dictionary of plastics*, by James F. Carley, Lloyd R. Whittington

Layer-by-layer decomposition of a plastic surface when heated quickly to a very high temperature. Usually, the decomposition is highly endothermic and the absorption of the energy at the surface shows penetration of high temperature to the interior.

### **Ablative, Ablative material , Ablative plastic, Ablative polymer, Ablative coating**

*Academic Press Dictionary of Science and Technology*, By Christopher G. Morris, Academic Press

A material, especially a coating material, that provides thermal protection to an object by burning away or disintegrating.

*ASM materials engineering dictionary*, by Joseph R. Davis

A material that absorbs heat (with a low material loss and char rate) through a decomposition process (pyrolysis) that takes place at or near the surface exposed to heat. The material essentially provides thermal protection (insulation) of the subsurface materials and components by sacrificing the surface layer. Ablation is an exothermic process.

[composite.about.com/library/glossary/a/bldef-a14.htm](http://composite.about.com/library/glossary/a/bldef-a14.htm)

A term applied to any polymer or resin with low thermal conductivity which pyrolyzes layer-by-layer when its surface is heated, leaving a heat-resisting layer of charred material which eventually breaks away to expose virgin material. Ablative plastics are used on nose cones of projectiles, re-entry rockets and space vehicles to isolate and protect them from hyperthermal effects of the environment.

*Dictionary of Ceramic Science and Engineering*, By Ian McColm

A body or a coating of low thermal conductivity, such as ceramic or glass-reinforced plastic, from which the surface layer is removed by a pyrolytic process, thereby resulting in the absorption or dissipation of heat from a substrate.

*Encyclopedic Dictionary of Polymers, Volume 1* edited by Jan W. Gooch

Material which absorbs heat while part of it is being consumed by heat through a decomposition process (pyrolysis), which takes place near the surface exposed to the heat.

*Encyclopedic Dictionary of Polymers, Volume 1* edited by Jan W. Gooch

Thick, mastic-like materials which absorb heat. They are designed to char and sacrifice themselves, while protecting the substrate underneath. This type of coating is similar to intumescent coatings that produce a foam on exposure to high heat to protect the substrate, but do not char as ablative coatings  
*Fiberset.com*

A material that absorbs heat through a decomposition process called pyrolysis at or near the exposed surface.

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

A body or coating of low thermal conductivity, such as ceramic or glass-reinforced plastic, which a pyrolytic process removes, resulting in absorption or dissipation of heat from a substrate.

*Polymer science dictionary, by Mark S.M. Alger*

A polymer composition which, under pyrolytic conditions encountered in use as space vehicle heat shields, has useful ablation properties. Effective materials degrade endothermically to yield volatile products and a thermally insulating char. In practice, nylon and phenolic/glass composites are widely used.

*Sp-bac.nl*

A material which absorbs heat (while part of it is being consumed by heat) through a decomposition process (pyrolysis) taking place near the surface exposed to the heat.

*Npteliitm.ac.in*

A material that absorbs heat (with low material loss and char rate) through a decomposition process (pyrolysis). Absorption takes place at or near the surface exposed to the heat.

*Polymer science dictionary, by Mark. s.m. Alger, Google books*

A polymer composition which, under pyrolytic conditions, has useful ablation properties. Effective materials degrade endothermically to yield volatile products and a thermally insulating char. In practice, nylon and phenolic/glass composites are widely used.

*spiderbites.about.com/links/detail\_composite\_1.htm*

A term applied to any polymer or resin with low thermal conductivity which pyrolyzes layer-by-layer when its surface is heated, leaving a heat-resisting layer of charred material which eventually breaks away to expose virgin material.

### **Ablator**

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

A material that dissipates heat by eroding, such as silicone resin containing cork, used to insulate the space shuttle external fuel tanks.

### **Abnet**

*Dry goods*

[From Hebrew abnet, a belt] In Jewish antiquity a girdle of fine linen. In surgery a bandage resembling a priest's girdle.

### **Abnormal crimp**

*ca-bc.com/zip\_internacional/usedmach/education/*

A relative term for crimp that is either too low or too high in frequency and/or amplitude or that has been put into the fiber with improper angular characteristics.

*QC Focus*

a carpet defect in which the crimp is too high or low in frequency and/or amplitude, or the crimp has improper angular characteristics.

### **Abraded yarn**

*Academy of textiles and flooring*

Continuous filament yarns where the filaments are cut or abraded at intervals with an additional twist to present a certain degree of hairiness, so as to simulate the character of yarns spun from staple. Abraded yarns are usually plied or twisted with other yarns before using.

*Ca-bc.com/zip\_internacional/usedmach/education/*

A filament yarn in which filaments have been cut or broken to create hairiness (fibrillation) to simulate the surface character of spun yarns. Abraded yarns are usually plied or twisted with other yarns before use.

*composites.ugent.be/home\_made\_composites/documentation/Glossary\_of\_textile\_terms\_for\_composites.pdf*

A filament yarn in which filaments have been cut or broken to create a surface hairiness (fibrillation) to simulate the surface character of spun yarns. Abraded yarns are usually plied or twisted with other yarns before use.

#### *Construction*

a method of producing a degree of hairiness in continuous filament yarns by cutting the filaments at intervals and adding twist. Abraded yarn is intended to simulate the characteristics of yarns spun from staple. Abraded yarns are often plied with other yarns before tufting or weaving.

#### *Dan River*

Continuous filament man-made yarns some of whose outer surfaces have been roughed up or broken. This gives the yarn an appearance similar to a spun yarn.

*Encyclopedic Dictionary of Polymers, Volume 1 edited by Jan W. Gooch*

A filament yarn in which filaments have been cut or broken to create hairiness (fibrillation) to simulate the surface character of spun yarn. Abraded yarns are usually plied or twisted with other yarns before use.

*Fabricdictionary.com*

A two-ply combination yarn. One is an abraded ply, the other is filament viscose rayon.

*HAND BOOK ON GLOSSARY OF TEXTILE TERMS, BUREAU OF INDIAN STANDARDS NEW DELHI 110 002, UDC 001.4/677 (021) ISBN 81-7061-009-5*

Continuous filament yarn in which the outer filaments have been purposely cut or abraded at intervals to bring about a certain degree of hairiness. Abraded Yarns are usually plied with other yarns before using.

*resil.com/c.htm*

Continuous filament yarn been subjected to abrading action Continuous filament yarn been subjected to abrading action, generally to provide it with hairiness characteristic of a staple-fibre yarn.

*talktextiles.com/nuke/Glossary/tabid/59/Default.aspx?topic=Mixed+End+Yarn*

A filament yarn in which filaments have been cut or broken to create hairiness (fibrillation) to stimulate the surface character of spun yarns. Abraded yarns are usually plied or twisted with other yarns before use.

### **Abrader**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

An artifact made from material with abrasive qualities, such as pumice or sandstone. Used to smooth or sharpen other objects.

### **Abrash**

*Academyoftextilesandflooring*

(1) Variations in the shade of a single color within a rug which usually appears in a horizontal line. (2) [A Persian term] A change in color in the field and border due to differences in wool

or dye batches. The color change extends across the rug, weft-wise. Abrash is more likely to occur at the top of a rug, as beginning yarn batches are used up, than at the bottom of a rug.

#### *AIcollector*

Colour variations in oriental carpets, caused by using wool from different batches of vegetable-based dye.

#### *Americantapestryalliance*

Slight variations in the weft color due to different dye lots, or to differences in dye absorption in the same dye lot.

#### *Carpetencyclopedia*

a Turkish word meaning partly coloured. It shows as a kind of variation in colours within the same colour nuance in the pile on Oriental nomadic carpets.

#### *Clickarug*

Abrash variations in color found within a field of color in an area rug. It is a natural effect of hand-weaving, and is sometimes an intentional attempt by the weaver to add interest to monotonous open-field backgrounds, it is generally seen as a desirable feature of tribal rugs.

#### *Goldenrugs*

A change in the color of a rug due to differences in the wool or dye batch. The color change runs across the rug and is most likely to occur at the top.

#### *navajorugrepair.com/orientalterms.htm*

The word used to describe the variations in color found within a single color in an Oriental rug. It refers to the hue or color change found on many older rugs, particularly those rugs woven by nomad tribes. While abrash is commonly seen in tribal nomadic rugs and in some modern Oriental rugs are intentionally woven with the color variation. The variations in color are usually the result of inconsistent dyeing of the wool, or through the introduction of a new wool batch while weaving the carpet. Generally some abash is desirable in tribal carpets and very undesirable in "city" carpets.

#### *Rugs & Carpets*

This refers to the hue or color change found on many older rugs, particularly those woven by nomad tribes. Abrash also is indication of traditional materials and dyeing practices. The variations in color are usually the result of inconsistent dyeing of the wool, or through the introduction of a new wool batch while weaving the carpet.

#### *Rugwarehouse*

A colour variation effect, which appears naturally in many antique hand-woven rugs. This effect usually appears in horizontal lines and occurs as a result in variations in dyes used or slight differences in yarns. Manufacturers of modern rugs sometimes intentionally create this effect to reproduce this antique look at a fraction of the price.

#### *The free dictionary*

The natural and variable change in color that occurs in an Oriental rug over time when different dyes are used.

#### *Therugs*

The natural and unpredictable variation in color that occurs in Oriental rugs over time when different dyes are used.

### **Abrasiometer**

#### *dtic.mil/cgi-bin/GetTRDoc?AD=AD014005&Location=U2&doc=GetTRDoc.pdf*

The abrasiometer is a device that causes a stream of abrasive particles, to impinge upon the surface to be tested until the coating is worn down to the base metal. The abrasive stream is propelled by controlled air pressure and the end point is visual. A deviation from the test as used by Arlt on regular anodized coatings was made. The air pressure was increased to 20 cm. of mercury in order to accelerate the test and to approach a range in the pressure-air flow curve i-, here the flow is less sensitive to pressure changes.

*Encyclopedic Dictionary of Polymers, Volume 1 edited by Jan W. Gooch*

One of the many devices used to test abrasion of a coating by using an air blast to drive an abrasive against the test film, or by rotating the film submerged in an abrasive, or by simply dropping a stream of abrasive onto the film.

[spiderbites.about.com/links/detail\\_composite\\_1.htm](http://spiderbites.about.com/links/detail_composite_1.htm)

One of the many devices used to test abrasion of a coating by using an air blast to drive an abrasive against the test film, or by rotating a film submerged in an abrasive, or by simply dropping a stream of abrasive onto the film.

## **Abrasion, Scuffing**

### **Abracija, Habanje**

*vidi* **Wear**

*Amefid Glossary of textile terms*

The act or result of surface rubbing during laundering or normal wear. Synthetic threads have superior abrasion resistance to cellulosic threads. Nylon threads like Anefil™ or Anecord® have excellent abrasion resistant characteristics. Perma Core® has good abrasion resistance and chemical resistance needed in many pre-washed garments.

*Fabricdictionary.com*

Rubbing, scraping off or scuffing of the surface of a fabric. Some permanent press finishes lessen abrasion resistance. Draperies that are frequently in use should be made of abrasion resistant fabrics.

*Hrvatsko nazivlje polimerstva, Institut za hrvatski jezik i jezikoslovlje, 2015*

### **Trošenje zbog relativnog gibanja elemenata tarnoga para.**

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

The wearing, grinding or rubbing away of the surface of a solid by friction induced by moving solids, liquids or gases.

*Indigotraveler.com*

Laundries try to make garments look worn or faded by scraping or rubbing the surface of the fabric causing abrasion. Pumice stones, sandpaper, grinders, etc provide mechanical abrasion. Enzymes, bleach, permanganate and reducers are used to get chemical abrasion. Abrasion gives nice color loss at seams but should not cause actual tears to fabric.

*Introduction to nanocomposite materials, by P. Hiemenz*

When two bodies are moved in relation to one another the friction, or adhesive interaction between them, will lead to wear damage. For interaction between hard surfaces under small loads, the damage can be minimal. For greater applied force, or softer materials, the wear will be more significant. The bodies in contact will form temporary bonds with varying strength. When the bodies are at rest, the strength and number of these bonds can increase with the time of contact. When the two bodies are moving relative to each other, temporary bonds must be broken. If the new bonds between two separate materials are easily broken, the wear is slight, perhaps a transfer of a few atoms, and nanoscopic roughening. If more material is removed, the wear becomes more noticeable.

*Nptel.iitm.ac.in*

Wearing away by friction. Glass is highly resistant to abrasion from other materials, but can be damaged through contact with itself. Lubrication during processing and fabrication helps prevent abrasion.

[pcimag.com/Articles/Feature\\_Article/BNP\\_GUID\\_9-5-2006\\_A\\_1000000000000597851](http://pcimag.com/Articles/Feature_Article/BNP_GUID_9-5-2006_A_1000000000000597851)

Abrasion is a phenomenon caused by the mechanical action of rubbing, scraping or erosion. It has two forms, marring or wearing. Mar abrasion is the permanent deformation of a surface, but the deformation does not break the surface. Wear abrasion is removal of a portion of the surface by some kind of mechanical action: wind erosion, sliding back and forth of an object,

wear of tires on traffic paint, and so on. The surface removal is gradual and progressive in nature.

### **Abrasion coefficient**

*Encyclopedic Dictionary of Polymers, Volume 1 edited by Jan W. Gooch*

Method for reporting the result on an abrasion test using the falling sand abrasion tester, in which it is assumed that the abrasion resistance is proportional to the film thickness.

### **Abrasion cycle**

*Encyclopedic Dictionary of Polymers, Volume 1 edited by Jan W. Gooch*

The number of abrading motions or cycles to which the test specimen is subjected in a test of abrasion resistance.

### **Abrasion damage**

#### **Oštećenje abrazijom**

*građevinarstvo \_ Struna \_ Hrvatsko strukovno nazivlje.html*

**Smanjenje vlačne čvrstoće geotekstila nastalo trljanjem površine geotekstila o neku drugu površinu. Normom se propisuje ispitivanje oštećenja geotekstila abrazijom metodom klizućeg bloka. Oštećenje abrazijom izražava se u postotcima. Vrijednost A u formuli predstavlja vlačnu čvrstoću referentnoga uzorka (izvorni neoštećeni uzorak), a vrijednost B vlačnu čvrstoću uzorka poslije ispitivanja na abraziju.**

### **Abrasion hardness**

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

The relative hardness of a solid substance in terms of its capacity to scratch or abrade another solid material or itself be scratched or abraded. See- Brinell test, Knoop hardness, Mohs hardness, Rockwell hardness and Vickers hardness.

### **Abrasion mark, Chafe mark**

*Ca-bc.com/zip\_internacional/usedmach/education/*

An area where a fabric has been damaged by friction.

*nordstromsupplier.com/NPG/PDFs/Quality and Manufacturing/Apparel/ZE - Glossary of Terms.pdf*

A place in the cloth where the surface has been damaged by friction or has been abnormally weakened by any operation through which it has passed.

*Teampuma*

an area of localised wear characterised by the presence of excessive surface hairiness or denuded fibre and caused by chafing by, or by oblique impact with, a hard or rough surface.

### **Abrasion resistance**

*vidi*

### **Wear resistance**

### **Abrasion-resistant finish**

*Cs.arizona.edu*

A finish applied to a fabric to add high abrasion resistance to fine lining fabrics. It is a process that combines dyeing and finishing linings fast to gas fading. The permanent fastness is accomplished without inhibitors.

*indiantextilejournal.com/articles/FAdetails.asp?id=614*

During chemical processing, breakdown can occur in cell membrane complex (CMC) of wool fibre. It is relatively a minor component of the fibre at the boundary of the cortical and cuticle cells. The removal of CMC results in fibre damage, which can reduce abrasion resistance of the fabric made from the fibre. To prevent severe damage of CMC, and to improve abrasion resistance, wool is treated with formaldehyde-based curing cross-linking agent. The hand,

drape, abrasion resistance, sewability and tear strength can be improved with the addition of a softener during polymer application.

### **Abrasion test, Abrasion testing**

*Academyoftextilesandflooring*

This test is usually performed with what is known as a Taber Abrader. This apparatus evenly wears away the face yarn of the specimen being tested at a uniform rate. The results of this test will be stated in the number of cycles and the percentage of face yarn worn away at specific intervals.

*Allfibreats*

Abrasion tests determine the ability of a fabric to withstand damage by friction. This is dependent on the fineness of the fibre, the amount of twist of the yarn and the weave structure of the fabric. Yarns that have a a firmer and tighter twist are generally more resistant to abrasion.

*Answers.com*

The measurement of abrasion resistance, usually by the weighing of a material sample before and after subjecting it to a known abrasive stress throughout a known time period, or by reflectance or surface finish comparisons, or by dimensional comparisons.

*Texworld*

test used to simulate and measure the wear performance of textile yarns, fabric or floorcovering in use. Note: There is little agreement between results obtained on different machines when used to test the same product, and the results obtained do not necessarily simulate effects produced during wear. One such type of machine is the 'Martindale'.

*Trelleborg.com*

**Wyzenbeck:** Specimens held under required pressure and load are placed on an Oscillating Cylinder loaded with #0 emery paper (unless otherwise specified) and are run the required number of cycles.

**Tabor:** Samples of coated fabric are abraded on one or both surfaces with a Taber abrader. Various combinations of abrasion wheels and weights are used, as specified. Generally, the end point is reported in cycles to initial fabric exposure. However, some customers and military specifications call for running a given number of cycles and then examining the sample for appearance, or then recording the loss in weight. Some specifications call for the number of cycles at which initial tearing of yarns occur.

*Victor-innovatex.com*

Tests performed on textiles or surface materials. Designed to gauge resistance to abrasion, friction, scuffing and other forms of abuse. The Wyzenbeck is the most commonly used abrasion test.

*Weavers.org.uk*

A test used to simulate the wear performance of textile yarns and fabrics. This test is often done using a piece of equipment called a Martindale Abrasion Tester, designed by Dr Martindale in the early part of the second world war to test the wear and tear of gas capes worn by soldiers who rode bicycles. It is generally agreed, however, that abrasion tests using any one of a variety of pieces of equipment do not necessarily simulate effects produced during normal day-to-day wear.

### **Abrasion tester**

*Ian J.McColm: Dictionary of Ceramic Science and Engineering, III Edition*

A laboratory device, usually provided with scouring, cascading or jet-propelled abrasive acting on the surface of a solid, employed in the evaluation of abrasion-resistant properties of surfaces.



## **Abrasion wear index**

*Dictionary of Ceramic Science and Engineering, By Ian McColm*

The comparative degree of wear on the surface of a solid material produced by constant test conditions.

## **Abrasive**

### **Abraziv**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

Any hard material used in the abrasion of other substances, such as sandpaper, emery or the like.

*Academy of textiles and flooring*

Granular, often hard material, synthetically produced or of natural origin, incorporated into cleaning chemicals or tools to help physically scour and remove heavy soil or stains. Pumice and silica are common abrasives.

*Antoine.frostburg.edu*

A very hard, brittle, heat-resistant substance that is used to grind the edges or rough surfaces of an object. boron, carbide, diamond, and corundum are abrasives.

*Britannica*

sharp, hard material used to wear away the surface of softer, less resistant materials. Included within the term are both natural and synthetic substances, ranging from the relatively soft particles used in household cleansers and jeweler's polish to the hardest known material, the diamond. Abrasives are indispensable to the manufacture of nearly every product made today.

*Carpet glossary*

A material used to scour, scrub, or polish. Abrasive particles are used in such products as cleaners, pumice stone, scouring pads, and hand cleaners.

*Enviro-solution.com*

A substance used to scour, scrub, smooth or polish. Abrasive particles are found in such products as cleansers, stones, scouring pads and hand cleaners. Caution may irreversibly damage surfaces.

*Glossary of Paint and Coatings Terminology, M. Pavlič, Ljubljana 2002.*

Substance that is suitable for carving and eroding due to its hardness and shape.

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

Any substance, which, by nature of its hardness or wear-resistance, is used for grinding, cutting or polishing. Ceramics such as diamond, silicon carbide, alumina, sand etc. are most commonly used abrasives.

*Naftni rječnik – Perić*

U tehnici – prirodna ili umjetna tvar (materijal) prikladna za brušenje, glačanje, rezanje ili čišćenje. U prirodne abrazive spadaju dijamant, smirak, kvarcni pijesak, dijamit i plovučac, a proizvedeni (umjetni) abrazivi su karborund (silicij-karbid), taljena glinica, bor-nitrid i drugi.

*oldnc.3dn.ru/Docs/Harper.C.A.Plastics\_Materials\_and\_Proc-s.pdf*

An abrasive is a material used for the surfacing and finishing of other materials by an abrasive action. Abrasives are often used to smooth and flare plastic surfaces; prepare surfaces for painting or adhesive bonding; and remove flash, molding gates, and other unwanted materials from plastic parts. Natural abrasives can be sand, walnut shells, etc. Artificial abrasives include silicon carbide, aluminum oxide, boron carbide, and boron nitride. Artificial abrasives are generally superior in uniformity to naturally occurring abrasives and provide more consistent abrasive finishing processes.

*REČNIK TRIBOLOŠKIH TERMINA , B. Ivković, Kragujevac 2012.*

Kristalni zrnasti materijali visoke tvrdoće i prizmatičnog oblika, sposobni da vrše rezanje drugih materijala.

*spiderbites.about.com/links/detail\_composite\_1.htm*

Any agent which, by a process of grinding down, tends to remove material from a surface.

### **Abrasive belt**

*Dictionary of Ceramic Science and Engineering, By Ian McColm*

A band or endless loop of cloth, paper, leather or sheet of other flexible substance to which an abrasive product has been bonded for use in grinding and polishing operations.

### **Abrasive cleaners**

*doityourself.com/stry/abrasives*

Abrasive Cleaners are mechanical cleaners. They physically scratch off dirt, stains and tarnish via friction as you rub the surface. They are composed of either particles or physical abraders such as sandpaper, steel wool, scrubbing pads, etc. The finer the particle the less are less abrasive and the coarser the particle the more abrasive. Baking soda and salt can be used as abrasives. Baking soda is finer, less abrasive. Salt more abrasive. Abrasives dull glossy surfaces and change both the reflection from, and texture of, surfaces. They should never be used on mica because they take away top layers making future cleaning eventually impossible.

*Enviro.solution.com*

Cleaning agents consisting of granular materials such as finely ground silica, talc, wood flour, corn meal, volcanic ash, powdered feldspar and powdered pumice. Clean mainly by their abrasive or scouring action. Some have detergents, bleaching agents or cleaning aids along with insoluble abrasives. Many of the abrasive powdered or cream cleansers will etch lavatory porcelain, chrome, arborite, formica, etc. The powdered silica types must be avoided at all cost as they lead to silcosis (lung cancer).

*healthycleaning101.org/english/glossary.html*

A cleaner that comes in powder and liquid form and contains a kind of built-in elbow grease, which helps cut down on the hard rubbing required to remove soil. These products are designed to remove relatively heavy amounts of soil often found in small areas.

### **Abrasive fabrics, Abrasive cloth, Emery cloth**

*answers.com/topic/abrasive-cloth*

Tough cloth to whose surface an abrasive such as sand or emery has been bonded for use in grinding or polishing.

*answers.com/topic/emery-cloth-4*

Emery cloth is a type of abrasive that has emery glued to a cloth backing. It is commonly used in metalworking by hand. A finer, less commonly seen, grade has a paper backing instead.

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

A strong, usually pliable fabric or cloth to which an abrasive has been bonded, and which is used in manual or mechanical grinding and polishing operations.

*resil.com/c.htm*

A general term for cotton fabrics used as backings for various abrasive and polishing agents. Usually sheetings and drills are employed extensively and twills in smaller quantities. The fabric is coated on one side with emery carboraundum or other such abrasive grit. These are largely used on industrial machine polishing of metals.

### **Abrasive finishing**

*composite.about.com/library/glossary/a/bldef-a25.htm*

A method of removing flash, marks and rough edges from plastic articles by means of abrasive belts, disks, or wheels. The process is usually employed on large rigid or semi-rigid products with intricate surfaces which cannot be treated by tumbling or other more efficient deflashing methods.

*oldnc.3dn.ru/Docs/Harper.C.A.Plastics\_Materials\_and\_Proc-s.pdf*

Abrasive finishing is a process by which a plastic part is given a certain surface appearance through the application of abrasive particles. Abrasive finishing can be used to remove imperfections from a plastic part or to smooth and polish a part's surface. It can also be used to provide a certain surface texture.

*Whittington's Dictionary of Plastics, by James W. Carley*

A method of removing flash, gate marks and rough edges from plastics articles by means of grit-containing belts or wheels. The process is usually employed on large rigid or semi-rigid products with intricate surfaces, which cannot be treated by tumbling or other more efficient method of finishing.

#### **Abrasive jet cleaning**

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

The process of removing dirt and soil from a solid surface by the impingement of an abrasive-bearing stream of liquid or gas on the surface of a solid.

#### **Abrasive machining**

*Dictionary of Ceramic Science and Engineering, By Ian McColm*

The technique of forming or shaping a solid item by grinding, drilling, or some similar mechanical process.

*Environmental Engineering Dictionary, edited by C. C. Lee*

A general machining process of using abrasive tools to finish a product, e.g. abrasive belt grinding is to rough and/or finish a workpiece by means of a power-driven belt coated with an abrasive, usually in particle form, which removes materials by scratching the surface and which makes the surface a good finish.

#### **Abrasive paper**

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

A paper sheet of high tearing strength to which an adhesive has been glued. Used in grinding and polishing operations. Sanpaper and emery paper are examples.

#### **Abrasive particles**

##### **Abrazivne čestice**

*REČNIK TRIBOLOŠKIH TERMINA, B. Ivković, Kragujevac 2012.*

**Tvrde čestice koje u zonama kontakta čvrstih tela izazivaju habanje kontaktnih površina ostavljajući na njima tragove u vidu riseva, zareza i jamica.**

#### **Abrasive tumbling**

##### **Abrazivno tambliranje**

*Dictionary of Ceramic Science and Engineering, By Ian McColm*

A process to improve the surface finish or to deburr solid materials by tumbling in a rotating cylinder containing abrasive particles.

#### **Abrasive wear**

**Abrazijsko habanje, Abrazijsko trošenje. Abrazivno habanje, Habanje hodanjem, Habanje trljanjem, Tarno habanje**

*Academic Press dictionary of science and technology, by Christopher G. Morris*

The removal of surface material by moving contact with a harder material, which creates grooves in the softer material.

*Academyoftextilesandflooring*

The wearing away of the pile surface of a carpet by friction created by walking or rolling traffic.

*antron capet and fibres*

Wear or texture change to an area of carpet that has been damaged by friction caused by rubbing or foot traffic.

*carpetbuyershandbook.com/carpet-glossary/glossary-a/*

The wearing away of the pile surface of a carpet by friction created by walking or rolling traffic. Wearing away the surface pile by traffic or other types of friction generated by use.

*machinerylubrication.com/Glossary*

Comes about when hard surface asperities or hard particles that have embedded themselves into a soft surface and plough grooves into the opposing harder surface,

*nhml.com/resources\_NHML\_Definitions.cfm*

The removal or displacement of material from a surface when hard particles slide or roll across the surface under pressure. The particles may be loose or may be part of another surface in contact with the surface being worn. Contrast with *adhesive wear*.

*REČNIK TRIBOLOŠKIH TERMINA , B. Ivković, Kragujevac 2012.*

**Vrsta habanja koja nastaje pri kretanju tvrdih čestica ili tvrdih vrhova neravnina po površini čvrstih tela**

*struna\_knj\_14\_strelementi\_04(1381).pdf – Foxit Reader*

**Trošenje materijala prouzročeno rezanjem ili grebenjem čvrstih tijela ili čvrstih čestica.**

**Abrazijsko habanje izazivaju i tvrde čestice nečistoće koje se nalaze u mazivu između površina.**

*Wikipedia*

When material is removed by contact with hard particles, abrasive wear occurs. The particles either may be present at the surface of a second material (two-body wear) or may exist as loose particles between two surfaces (three-body wear). Abrasive wear can be measured as loss of mass by the Taber Abrasion Test according to ISO 9352 or ASTM D 1044.

### **Abrasive wheel**

*Dictionary of Ceramic Science and Engineering, By Ian McColm*

A grinding wheel or disc composed of an abrasive grit and an appropriate bonding material, used for grinding, polishing, shaping or cutting of a solid surface.

### **Abrasiveness**

*Dictionary of Ceramic Science and Engineering, By Loran O'Bannon*

The ability of a material to wear down or rub away the surface of a solid material by friction.

### **Abroma hemp**

*Dictionary of textile*

Called also perennial Indian hemp, grows in the Philippine Islands, India, etc. The fibers are used for coarse cloth and for tow.

### **Absolute**

*Carper glossary*

A chemical substance that is not mixed (i.e., pure). An example is absolute alcohol, with is ethyl alcohol, 99% pure, containing not more than one percent by weight of impurities.

### **Absolute alcohol**

*Encyclopedic Dictionary of Polymers, Volume 1 edited by Jan W. Gooch*

Ethyl alcohol that has been refined by azeotropic distillation to 99,9% purity. Other commercial ethanols contain about 5% water and may contain denaturants that make the alcohol undrinkable. Pure anhydrous ethyl alcohol (ethanol). The term is used to distinguish it from the several varieties of alcohol which are available, and which contain varying amounts of water and/or other impurities.

### **Absolute boiling point**

#### **Apsolutno vrelište.**

*Naftni rječnik – Perić*

Vrelište tvari izraženo jedinicom skale apsolutne temperature; v. boiling point, true boiling point.

### **Absolute density**

#### **Apsolutna gustoća.**

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

The weight of a unit volume of a pore-free substance under specified conditions of pressure and temperature.

*Naftni rječnik – Perić*

Gustoća ili relativna gustoća fluida svedena na standardne uvjete (tlak i temperaturu).

Sinonim: absolute gravity.

### **Absolute dynamic viscosity**

*Encyclopedic Dictionary of Polymers, Volume 1 edited by Jan W. Gooch*

The force per unit area that resists the flow of two parallel fluid layers past one another when their differential velocity is 1cm/s/cm separation. The viscous force is described by Newton's equation:

$$f = \eta A (dv/dx)$$

where A is the area (cm<sup>2</sup>) (dv/dx) the velocity gradient (s<sup>-1</sup>), and  $\eta$  is the coefficient of absolute viscosity (poise).

### **Absolute error**

*chemistry.about.com/od/chemistryglossary/a/aberrordef.htm*

Absolute error or absolute uncertainty is the uncertainty in a measurement, which is expressed using the relevant units. Also, absolute error may be used to express the inaccuracy in a measurement.

*dictionary.babylon.com/absolute\_error*

the measurement of the data is not precise (due to the instruments), or approximations are used instead of the real data (e.g., 3.14 instead of  $\pi$ ).

*Whittington's dictionary of plastics, by James F. Carley, Lloyd R. Whittington*

The difference between a measurement and the true value of the quantity measured.

*Wikipedia.org*

The absolute error is the magnitude of the difference between the exact value and the approximation.

*xdcr.com/UT\_terms.html*

The difference between a measurement and its true value. We must estimate the true value so this is often expressed with confidence intervals.

### **Absolute filtration rating**

*Fluidlife*

the diameter of the largest hard spherical particle that will pass through a filter under specified test conditions. This is an indication of the largest opening in the filter elements.

*liquid-filters.net/Types-and-Terms.htm*

The diameter of the largest spherical particle that is able to pass through a filter in certain testing conditions. The AFR indicates the biggest opening in any given filter element.  
*machinerylubrication.com/Glossary*

The diameter of the largest hard spherical particle that will pass through a filter under specified test conditions. This is an indication of the largest opening in the filter elements.  
*purolator-efp.com/glossary.htm*

The diameter (in microns) of the largest glass bead which, under constant flow, just passes through the mesh.  
*twpinc.com/def.html*

A measure of retention, expressed in microns, that specifies the equivalent diameter of the smallest particle from which the filter has a retention of 100%. In actual practice, most manufacturers assign absolute ratings on the basis of retention in the range from 98% - 99.999999%.

### **Absolute humidity**

*energymanagertraining.com/CodesandManualsCD-5Dec 06/BEST PRACTICE MANUAL - DRYERS.pdf*

It is the amount of liquid (e.g. water) vapour in a given gas stream expressed as weight of liquid per weight of dry gas, expressed as kg of liquid /kg of dry air

*Encyclopedic Dictionary of Polymers, Volume 1* edited by Jan W. Gooch

Mass of water vapor present in unit volume of the atmosphere, usually measured as grams per cubic meter. It may also be expressed in terms of the actual pressure of the water vapor present.

*flowmeterdirectory.com/sensor\_terminology\_a.html*

the mass of water vapor in a unit volume of gas mixture

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Omjer obujma i mase vodene pare u nekome dijelu atmosfere.**

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

The weight of water vapour contained in a unit volume of air. Several units are used, but g/m<sup>3</sup> is common.

*Naftni rječnik – Perić*

**Sadržaj vodene pare u zraku izražen kao masa vode po jediničnom volumenu zraka (kao omjer količine vode u masenom % i jedinice volumena zraka); v. humidity, relative humidity, specific humidity.**

*resil.com/c.htm*

The mass of water vapour present in a unit volume of moist air.

*Wikipedia*

Absolute humidity is the quantity of water in a particular volume of air. The most common units are grams per cubic meter, although any mass unit and any volume unit could be used. Pounds per cubic foot is common in the U.S., and occasionally even other units mixing the Imperial and metric systems are used. If all the water in one cubic meter of air were condensed into a container, the container could be weighed to determine absolute humidity. The amount of vapor in that cube of air is the absolute humidity of that cubic meter of air. More technically: the mass of water vapor  $m_w$ , per cubic meter of air,  $V_a$ .

$$AH = \frac{m_w}{V_a}$$

Absolute humidity ranges from 0 grams per cubic meter in dry air to 30 grams per cubic meter (0.03 ounce per cubic foot) when the vapour is saturated at 30 °C.[1] (See also Absolute Humidity table) The absolute humidity changes as air pressure changes. This is very inconvenient for chemical engineering calculations, e.g. for dryers, where temperature can vary considerably. As a result, absolute humidity is generally defined in chemical engineering as mass of water vapor per unit mass of dry air, also known as the mass mixing ratio (see

below), which is much more rigorous for heat and mass balance calculations. Mass of water per unit volume as in the equation above would then be defined as volumetric humidity. Because of the potential confusion, British Standard BS 1339 (revised 2002) suggests avoiding the term "absolute humidity". Units should always be carefully checked. Most humidity charts are given in g/kg or kg/kg, but any mass units may be used. The engineering of physical and thermodynamic properties of gas-vapor mixtures is named Psychrometrics.

### **Absolute loom efficiency**

*Texworld*

The ratio of the number of picks inserted by a weaving machine (per unit of time, e.g., hour, shift, day or week) to the number of picks which would have been inserted if the machine had been running continuously (using actual machine speed for the calculation).

### **Absolute method**

#### **Apsolutna metoda, Fizička metoda**

*Environmental Engineering Dictionary, edited by C. C. Lee*

A method in which characterisation is based entirely on physical (absolute) defined standards.

### **Absolute permittivity**

#### **Apsolutna električna konstanta**

*Polymer science dictionary, by Mark S.M.Alger*

A measure of the ability of a material to store electric charge, as energy per unit volume, and having units of farads per metre, when the material is polarised due to an applied electric field. Its value is dependent on both sample geometry and field strength. Strictly, it is the ratio of the electrical displacement (which is electric flux in a material in a uniform field, compared with that in free space) to the field strength. The term is sometimes used to mean the relative permittivity, which is a material property, independent of the field strength. Any confusion is limited, since absolute permittivities have values of about  $10^{-11}$  to  $10^{-9}\text{Fm}^{-1}$ , whereas relative permittivities have dimensionless values of 1 to about 50.

### **Absolute pressure**

#### **Apsolutni tlak, Ukupni tlak**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

#### **Zbroj hidrostatskoga tlaka u tekućini i vanjskoga tlaka na površinu tekućine.**

*Polymer Technology Dictionary, by Tony Whelan*

The pressure measure against zero pressure. The sum of atmospheric and gauge pressure.

### **Absolute sensitivity**

#### **Apsolutna osjetljivost**

*INSTRUMENTALNE KEMIJSKE METODE I DIO, Milan Tomljanović Zenica, 2000.*

Pod apsolutnom osjetljivošću podrazumijeva se minimalna količina elementa koja je neophodna za registraciju analitičkog signala koji potvrđuje prisustvo tog elementa. Veličina apsolutne osjetljivosti odnosi se na određivanje čistog elementa (bez prisustva drugih elemenata) i izražava u težinskim (grami, mikrogrami) ili rjeđe u molarnim jedinicama (broj molova).

### **Absolute specific gravity**

*Ian J.McColm: Dictionary of Ceramic Science and Engineering, III Edition*

The ratio of the weight of a given volume of a substance in a vacuum at a given temperature to the weight of an equal volume of water in a vacuum at the given temperature.

### **Absolute temperature, Thermodynamic temperature**

#### **Apsolutna temperatura, Termodinamička temperatura**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Temperatura koja je iskazana jedinicom kelvin, mjerena je ljestvicom u kojoj je temperatura trojne točke vode 273,16 K. Apsolutna je temperatura najčešće iskazana jedinicom kelvin i mjerena ljestvicom u kojoj je temperatura trojne točke vode 273,16 K**

*Naftni rječnik – Perić*

Teoretski izmjerljiva temperatura na skali termodinamičke temperature. Temperatura u Celzijevim stupnjevima u odnosu na apsolutnu nulu kod  $-273,16\text{ }^{\circ}\text{C}$  (Kelvinova skala) ili kod  $-459,69$  Fahrenheita (Rankineova skala). Na Kelvinovoj skali apsolutne temperature ledište vode je kod 273,16 K, a vrelište na 373,16 K.

*Polymer Technology Dictionary, by Tony Whelan*

Also known as thermodynamic temperature and has the symbol K (Kelvin). The thermodynamic temperature is a measure of the thermal energy of random motion of particles of a system in thermal equilibrium. The triple point of water is defined as being 273,16 Kelvins. The zero is at  $-273,16$  degrees Celsius (absolute zero) and the magnitude of the unit of thermodynamic temperature is the same as the degree on the Celsius scale. Absolute temperature is approximately obtained by adding 273 to the Celsius/centigrade figure.

### **Absolute viscosity, Dynamic viscosity, Coefficient of viscosity**

*Britannica*

stress divided by the rate of shear strain is constant for a given fluid at a fixed temperature. This constant is called the dynamic, or absolute, viscosity and often simply the viscosity. Fluids that behave in this way are called Newtonian fluids in honour of Sir Isaac Newton, who first formulated this mathematical relationship.

*cannoninstrument.com/viscosity\_definitions.pdf*

The tangential force per unit area of two parallel planes at unit distance apart when the space between them is filled with a fluid and one plane moves with unit velocity in its own plane relative to the other. Also known as coefficient of viscosity.

*Encyclopedic Dictionary of Polymers, by Jan W. Gooch*

(1) Tangential force on unit area of either of two parallel planes at unit distance apart, when the space between the planes is filled with fluid (in question), and one of the planes moves with unit velocity in its own plane, relative to the other. (2) Force required to move in opposite directions at a velocity of 1 m/s, two parallel planes of liquid,  $1\text{ m}^2$  in area and separated from each other by a distance of 1 m. Designated by the Greek letter  $\eta$ .

*Fluidlife*

a term used interchangeably with viscosity to distinguish it from either kinematic viscosity or commercial viscosity. Absolute viscosity is the ratio of shear stress to shear rate. It is a fluid's internal resistance to flow. The common unit of absolute viscosity is the poise. Absolute viscosity divided by fluid density equals kinematic viscosity. It is occasionally referred to as dynamic viscosity. Absolute viscosity and kinematic viscosity are expressed in fundamental units. Commercial viscosity such as Saybolt viscosity is expressed in arbitrary units of time, usually seconds.

*pneumatic-source.com/resources/glossary/a.shtml*

Is the force in newton required to move a fluid layer of one square meter area and a thickness of one meter with a velocity of one meter per second.

*Toolingu*

The resistance to flow encountered when one layer or plane of fluid attempts to move over another identical layer or plane of fluid at a given speed.

### **Absolute volume**

**Apsolutni volumen (obujam).**

*Naftni rječnik – Perić*



Volumen tvari po jedinici njene mase ili koji zauzme ili istisne čvrsta tvar kada se doda vodi, podijeljen težinom tvari. Jednak je recipročnoj vrijednosti apsolutne gustoće (gustoće pri standardnim uvjetima). Izražava se u m<sup>3</sup>/kg (gal/lbm).

### **Absolute white**

*coloraccuracy.com/default.*

In theory, a material that reflects all light energy at every visible wavelength. In practice, a solid white with a known spectral reflectance data that is used as the reference white for all measurements of absolute reflectance. When calibrating a spectrophotometer, often a white ceramic plaque is measured and used as the absolute white reference.

*digitalexposure.ca/sub1.html*

In theory, a material that perfectly reflects all light energy at every visible wavelength. In practice, a solid white known spectral data used as the "reference white" for all measurements of absolute reflectance.

*munsellstore.com/(S(lczhp4b5lnufeg45u1bplj55))/default.aspx?act=faq.aspx&category*

In theory, a material that reflects all light energy at every visible wavelength. In practice, a solid white with a known spectral reflectance data that is used as the reference white for all measurements of absolute reflectance. When calibrating a spectrophotometer, often a white ceramic plaque is measured and used as the absolute white reference.

*photonics.com/directory/dictionary/lookup.asp?url=lookup&entrynum=5928&letter=a*

A perfect diffuser that exists only as a concept, or a white with known spectral characteristics used as a reference in measuring absolute reflectance.

### **Absolute zero**

#### **Apsolutna nula**

*alcwin.org/Chemical\_Terms\_Description-1-A.htm*

The temperature (-273.15°C or 0 K) at which the volume and pressure of an ideal gas extrapolate to zero.

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Najniža vrijednost termodinamičke temperature moguća u prirodi. Ta je temperatura jednaka 0 K. Na toj bi se temperaturi, prema klasičnoj kinetičkoj teoriji plinova, kinetička energija čestice smanjila na nulu, što se u stvarnosti ne događa zbog kvantnomehaničkih zakonitosti.**

*Ian J.McColm: Dictionary of Ceramic Science and Engineering, III Edition*

Temperature characterised by the complete absence of heat, or at which all particles whose motions constitute heat, cease to move. Believed to be the equivalent of - 273,16<sup>0</sup>C.

*oilgasglossary.com/category/a*

A hypothetical temperature at which there is a total absence of heat. since heat is a result of energy caused by molecular motion, there is no motion of molecules with respect to each other at absolute zero.

*saskschools.ca/curr\_content/chem30\_05/appendix/glossary.htm*

the temperature at which all molecular motion should cease. Theoretically, absolute zero is the lowest temperature possible. It is -273.15°C or 0 K (zero kelvin).

### **Absorb**

*Ian J.McColm: Dictionary of Ceramic Science and Engineering, III Edition*

(1) To soak or suck-up liquids. (2) To take an incident radiated energy and retain it without reflection or transmission, (3) To undergo or cause a process in which a gas or liquid permeates and is dissolved in a solid.

*pneumatic-source.com/resources/glossary/a.shtml*

A method to trap liquids or gases by causing them to penetrate into the absorbent material.

## **Absorbance, Absorptance, Optical density**

### **Apsorbancija, Apsorpcijski koeficijent, Apsorptancija, Faktor apsorpcije, Koeficijent apsorpcije**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

The logarithm of the ratio of light intensity incident on the solution under analysis to the intensity transmitted by it. Usually directly proportional to the concentration of the absorbing substance in a pure solution. (See – Absorbancy, Extinction.)

*Ca-bc.com/zip\_internacional/usedmach/education/*

The ability of a substance to transform radiant energy into a different form, usually with a resulting rise in temperature. Mathematically, absorbance is the negative logarithm to the base 10 of transmittance.

*Chem.ubc.co*

The amount of light absorbed by a liquid sample in colorimetric analysis. The initial amount of light ( $I_0$ ) shone at a liquid sample will decrease as it passes through the sample because it is absorbed by the chemicals within. The amount of light that re-emerges ( $I$ ) will be less than  $I_0$ . Mathematically, absorbance ( $A$ ) =  $\log(I_0/I)$ ; no units.

*Chemmeddl.org*

Absorbance is a measure of the amount of light which is not passed through a substance. It occurs when a material uses the energy from light to change the energy level of the material's electrons. Electrons in atoms or molecules can be "excited" from one energy state to another by the absorption of electromagnetic radiation. The transition of an electron from one state to another is permitted only if the energy of the radiation equals the energy difference between the two states. The wavelength of light indicates how much energy the light has. Since different materials have different electronic energy states, they absorb light of different wavelengths.

*coloraccuracy.com/default.*

Absorbance is ?light-stopping ability.? The higher the value, the more light the sample absorbs. Values typically range from 0 to 3.0. Mathematically, absorbance is calculated  $A = \log_{10}(I_0/I)$  where  $T$  is transmittance, expressed as a decimal from 0 to 1 (for example, 0.5R is 50%R). This is the same equation used to calculate density in graphic arts and photography applications.

*comarchitect.org/webhelp/14\_5\_definition\_of\_terms.htm*

the ratio of the radiation absorbed by a surface to the total energy falling on that surface

*Environmental Engineering Dictionary, edited by C. C. Lee*

(1) The logarithm to the base 10 of the ration of the initial intensity ( $I_0$ ) of a beam of radian energy to the intensity ( $I$ ) of the same beam after passage through a sample at a fixed wavelength. (2) A measure of the decrease in incident light passing through a sample into a detector.

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**(1) Veličina koja iskazuje udio apsorbiranoga elektromagnetskog zračenja u otopini. Apsorbancija ovisi o koncentraciji tvari u otopini. (A) (2) Bezdimenzijska veličina koja je jednaka omjeru toka apsorbiranoga zračenja i ukupnoga upadnog toka.**

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

A measure of the light-absorbing ability of a material or object, expressed as  $\log_{10}$  of the reciprocal of internal transmittance.

*Merriam Webster*

the ability of a solution or a layer of a substance to absorb radiation that is expressed mathematically as the negative common logarithm of the transmittance of the substance or solution -- called also *optical density*

*schools.look4.net.nz/science/chemistry/index/index\_html*

A measure of the amount of light absorbed by a sample. The absorbance (A) equals minus the base-10 log of the transmittance.

### **Absorbed dose**

#### **Apsobirana doza**

*Environmental Engineering Dictionary, edited by C. C. Lee*

The amount of a chemical that enters the body of an exposed organism. Equals to intake multiplied by an absorption factor.

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

- 1. Omjer energije koju je apsorbirao djelić tvari izložen ionizirajućemu zračenju i njegove mase.**
- 2. Energija koju ozračena tvar upije po jedinici mase.**

### **Absorbency**

*Aatcc.org*

the propensity of a material to take in and retain a liquid, usually water, in the pores and interstices of the material.

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

The taking up of a substance in bulk by other matter. (2) The relative capacity of a substance to allow penetration by another substance.

*Ca-bc.com/zip\_internacional/usedmach/education/*

The ability of one material to take up another material.

*chezchazz textile*

The ability of a textile to absorb liquid.

*Encyclopedic Dictionary of Polymers, Volume 1 edited by Jan W. Gooch*

The property of a porous material, such as paper, which causes it to take up liquids or vapours (e.g. moisture) with which it is in contact.

*Etherington & Roberts*

The degree of receptivity of a material to liquids, either in liquid or gaseous form. Measures of absorbency include: 1) the time a material requires to absorb a specific volume of liquid; 2) the rate of rise of a liquid along a vertical strip of a material, the end of which is immersed in the liquid; 3) the total area of a specimen wetted by the liquid within a specified time period; and 4) the total absorptive capacity of a material expressed as the quantity of liquid absorbed by a completely saturated specimen. Absorbency is of importance because paper, for example, generally has the ability to absorb or give up moisture depending upon the wetness, i.e., RELATIVE HUMIDITY, of the atmosphere around it, and, because the effect is not uniform in all directions. Because of the latter, the MACHINE DIRECTION of the paper used in producing books becomes an important factor in both printing and bookbinding. See also: COCKLE (1); WARPING.

*Fabriclink*

The ability of a fabric to take in moisture. Absorbency is a very important property, which effects many other characteristics such as skin comfort, static build-up, shrinkage, stain removal, water repellency, and wrinkle recovery.

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

The ability of a fluid material to penetrate into another material, specified as the weight of a fluid absorbed to the weight or volume of the dry specimen.

*Technical centre*

The ability of a fabric to take in moisture. Absorbency is a very important property, which effects many other characteristics such as skin comfort, static build-up, shrinkage, stain removal, water repellency, and wrinkle recovery.

*Textile preparation and dyeing, by Asim Kumar Roy Choudhury, Google books*

Absorbency refers to the ability of a porous solid material to take up and retain, under various conditions, significant amount of water or other liquids, by several distinct spontaneous processes, namely: (1) the condensation of liquid into the pores or crevices of a solid matrix from the vapour phase (capillary condensation), (2) the penetration of a liquid into a solid matrix when one side of the porous solid is in contact with a large liquid reservoir (penetration absorption), (3) the movement of small liquid masses (also called threads) into the interior of a porous matrix, (4) the uptake of a liquid into a porous solid, which is totally immersed (immersion absorption) in a large liquid reservoir, expelling trapped air from the solid, and (5) the motion of either large or small liquid masses along the microscopically rough surface of a porous matrix. Absorbency depends on the bulk properties, such as resistance to compression-expansions shear and torsional distortion, etc. of the solid., the structure of solid matrix, namely pore size, size distribution, shape, texture and roughness of the solid surface, and liquid properties like viscosity. It also critically depends upon the specific dynamic makeup of the three interfaces involved. The surfactants play an important role in determining the properties of the interfaces involved.

*Victor-innovatex.com*

The ability of a textile to absorb liquid. Measured both in terms of how much liquid can be absorbed and the rate at which absorption occurs.

### **Absorbency under load**

*disposable diaper.net/files/dictionary.pdf*

Capacity of a material to absorb liquid under pressure.

*patentstorm.us/patents/7053131/description.html*

"Absorbency Under Load" (AUL) is a measure of the liquid retention capacity of a material under a mechanical load. It is determined by a test which measures the amount in grams of an aqueous solution, containing 0.9 weight percent sodium chloride, a gram of a material can absorb in 1 hour under an applied load or restraining force of about 0.3 pound per square inch.

*Textilesintelligence*

the weight of fluid in grams that can be absorbed by 1 gram of fibre, yarn or fabric which has been subject to a pressure of 0.25 lb/in<sup>2</sup> before wetting.

### **Absorbent, Absorbent agent**

*Answers.com*

A material which, owing to an affinity for certain substances, extracts one or more such substances from a liquid or gas with which it is in contact, and which changes physically or chemically, or both, during the process.

*Businessdictionary*

Material that extracts a fluid (gas or liquid) from a medium or surface on contact, and changes physically or chemically during the process.

*carpetbuyershandbook.com/carpet-glossary/glossary-a/*

A material that attracts substances from a surface itself. Absorbents are used in carpet cleaning, spotting, concrete cleaning, and spill control.

*chromatographyonline.findanalytichem.com/lcgc/article/articleDetail.pageID=9*

Packing used in adsorption chromatography. Silica gel and alumina are the most frequently used adsorbents in high performance liquid chromatography (HPLC).

*Enviro-solution.com*

A products that attracts into the body of one substance by another so that the absorbed substance disappears physically, e.g. detergent, etc.

*Naftni rječnik – Perić*

Materijal koji se rabi za uklanjanje tekućine (tekućih faza) iz plinova postupkom (metodom) apsorpcije (npr. apsorpcijsko ulje za uklanjanje tekućih faza iz masnog plina); v. absorber, absorption.

*pcimag.com/Articles/Feature\_Article/BNP\_GUID\_9-5-2006\_A\_1000000000000597851*

Absorption is a process wherein a material is taken up and held, or retained, by another material. The material taken up is called the “absorbate” and the material that retains the material from the absorption process is called the “absorbent.” Thus, absorbents are materials that are able to take up another material with the formation of a homogeneous mixture. For example, cotton fibers will take up moisture, charcoal will take up a gas, baking soda will take up odors, silica gels will take up moisture; certain pigments, clays or extenders will take up oils and others will take up moisture; and so on. This should be contrasted with adsorption, which is a surface phenomenon and wherein adsorbed molecules can have markedly different properties than those of absorbed molecules. Compounds such as zeolites or molecular sieves are adsorbents that take up compounds by the adsorption process (See Moisture Scavenger).

### **Absorbent cleaning, Absorbent pad cleaning**

*Academy of textilesandflooring*

A process in which a low-residue detergent is applied to the carpet to suspend soil, which is then absorbed into a pad rotated by a drive block on a rotary machine.

*carpetcleaningcoupons.org/Methods/Absorbent\_Pad\_Carpet\_Cleaning.html*

Absorbent Pad Carpet Cleaning cleans the surface of carpets. Most people use this type of cleaning method when the carpets do not look bad but they want them a little cleaner. It is inexpensive and rather simple to do yourself, instead of hiring professionals. The nice thing about this process is how fast your carpets will dry. Often times within 30 minutes your carpets will be 100% dry. This is nice because with steam cleaning taking 7 hours to dry you find your self hopping around the house trying not to make any track marks as your carpets dry.

*carpetcleaningstuff.com/moreinfo.htm*

The method of cleaning called Absorbent Pad carpet cleaning (usually called bonnet cleaning) is arguably a simple method of cleaning a carpet’s surface. It is not deep cleaning, though, and is considered less effective than some dry methods.

### **Absorbent cotton**

*Academic dictionary of textiles, by Vinay Kumar*

Cotton for surgical dressings, cosmetic purposes, etc., made absorbent by removing the natural wax.

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

Cotton from which the natural wax has been removed, for use in surgical dressings and for other medical or cosmetic purposes.

*Academy of textilesandflooring*

Raw fiber with waxy and fatty matter removed in order to enable it to take up water readily. Comes in either fiber form, or gauze for medical uses.

*Beloved linens*

Fibre or cloth with natural oil or wax removed chemically. Because of absorbent nature, used for surgical purposes.

*HAND BOOK ON GLOSSARY OF TEXTILE TERMS, BUREAU OF INDIAN STANDARDS  
NEW DELHI 110 002, UDC 001.4/677 (021) ISBN 81-7061-009-5*

Cotton fibre chemically treated after removing as completely as possible all fatty and other non-cellulosic ingredients, to render it adequately absorbent. Absorbent Cotton may be sterilized for certain end uses, e.g. medical purposes.

*resil.com/c.htm*

Cotton fibres from which natural wax and fats are removed by chemical treatment Cotton fibres from which natural wax and fats are removed by chemical treatment to make it absorbent. Used mainly for surgical dressings

### **Absorbent finish**

*jpkc.cztgi.cn/swyy/kcwz\_tzzy/resources/013\_1.doc*

Cellulosic fibres that are being used for diapers<sup>51</sup>, towels, or other items in which absorbency is important may have ammonium<sup>52</sup> compounds applied to them. Some attempts have been made to increase the absorbency of synthetic fibres. Antistatic finishes for synthetics also make them more hydrophilic.

*lib.ncsu.edu/news/textiles.php?m=200411*

The treatment of fabrics with chemical compounds that increase their ability to take up liquids or moisture.

*resil.com/c.htm*

A type of finishing in which the fabric is treated chemically to increase its ability to absorb liquids

### **Absorbent pad**

*Academy of textilesandflooring*

For cleaning textile floor coverings, a damp textile material (fabric, felt, sponge, or mop) used to agitate and wipe the pile and, in the process, absorb soil.

*bzwxw.com/soft/UploadSoft/new5/ASTM--D123-2003.pdf*

a damp textile material (fabric, felt, sponge, or mop) used to agitate and wipe the pile and, in the process, absorb soil.

### **Absorber**

#### **Apsorber**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

(1) Any medium that is used to absorb something else, such as a sponge for liquid, rubber for vibration, or a liquid for vapour. (2) A device consisting primarily of a black surface or a system of fluids or pipes, used to absorb solar or other energy as heat. (3) Any substance or device that collects or dissipates radiant energy. It may provide shielding for such energy or prevent its reflection. It may also allow particular components of radiant energy to be extracted from a material. (4) A material with high neutron absorption cross section, such as cadmium or boron, used to adjust the neutron reaction rate in a reactor core.

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Tijelo koje apsorbira zračenje. Zbog svojih značajka apsorbira se često upotrebljavaju kao štitnici.**

*an J.McColm: Dictionary of Ceramic Science and Engineering, III Edition*

(1) A material or structure that absorbs. (2) A material that absorbs radiation or causes radiation to lose energy.

### **Absorber capacity**

#### **Kapacitet apsorpcijskog reaktora**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

The maximum allowable vapour or liquid velocity in a packed or plate-type absorption reactor at a given set of operating conditions.

### **Absorber filter**

Texacoursa

A filter medium that holds contaminant by mechanical means.

### **Absorber plate**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

A flat surface, usually black and sometimes incorporating the use of mirrors or transparent covers, used to collect solar energy.

### **Absorptiometer, Absorptometer**

#### **Apsorpciometar**

*Environmental Engineering Dictionary, edited by C. C. Lee*

An instrument used to measure the concentration of the absorbed constituents in a gas or liquid.

*Polymer science dictionary, by Mark S.M.Alger*

An instrument for measuring the structure of carbon black by determining the volume of the air spaces between the aggregated black particles. This is done by measuring the volume of dibutyl phthalate required to fill the voids of 100g of black. A weighted amount of black is stirred in a chamber and dibutyl phthalate is added. When all the voids are just filled, the mixture noticeably stiffens.

*Polymer Technology Dictionary, by Tony Whelan*

A device used to measure the structure of carbon black by measuring the amount of dibutyl phthalate needed to fill the void in a 100 g sample of the black.

### **Absorptiometric analysis**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

A chemical analysis of gas or liquid that is performed by measuring the peak electromagnetic absorption wavelengths, characteristic of a specific element or compound.

*Environmental Engineering Dictionary, edited by C. C. Lee*

The use of absorptiometer to analyse a gas or liquid by measurement of the peak electromagnetic absorption wavelength that is unique to a specific material or element.

### **Absorption**

#### **Apsorpcija, Upijanje**

[203.158.6.144/Astm/cd060105/PDF/E284.pdf](https://www.astm.org/standards/cd060105/PDF/E284.pdf)

the transformation of radiant energy to a different form of energy by interaction with matter.

*Academy of textilesandflooring*

(1) The property of a fiber, yarn or fabric which enables it to attract and hold gases or liquids within its pores. Dyes and pigments contribute to the color, or colors, seen by the eye through light and is called absorption. Also, a process in which a substance enters through a body surface such as the lungs, skin, or gastrointestinal tract, and ultimately into body fluids and tissues. See absorbed moisture. (2) When light strikes an object, some light is reflected and absorbed. The darker the object the more light it absorbed. (3) A process whereby a material extracts one or more substances present in an atmosphere or mixture of gases or liquids; accompanied by physical change, chemical change, or both, of the material. (4) Capillary, osmotic, or chemical action by which fibers, yarns or fabrics become intermixed with liquids or gases.

*Bradyid.com*

The process of liquids being attracted into the pores or gaps in a fabric.

*Ca-bc.com/zip\_internacional/usedmach/education/*

The process of gases or liquids being taken up into the pores of a fiber, yarn, or fabric.

*ch.ic.ac.uk/vchemlib/mol/glossary/*

In chemistry absorption can mean two things: Firstly it can imply that powerful forces exist holding two substances together, and that separation of the two is not easily accomplished. Secondly it can mean absorption of heat, light etc.. . The absorption of ultraviolet, visible and infrared radiation is the basis of some forms of spectrometry which can be used to identify different chemical compounds.

*coloraccuracy.com/default.*

Dissipation of the energy of electromagnetic waves into other forms as a result of its interaction with matter; a decrease in directional transmittance of incident radiation, resulting in a modification or conversion of the absorbed energy.

*comarchitect.org/webhelp/14\_5\_definition\_of\_terms.htm*

the process whereby a porous material extracts one or more substances from an atmosphere

*Concise dictionary of material science, by Vladimir Novikov*

Phenomenon of taking up atoms or energy from the environment into a body. A reduction in the intensity of certain radiation passing through a substance is described by an absorption coefficient

*Dataphysics.de*

is the entering of particles of one phase into a different bulk phase by penetrating a surface

*Encyclopedic Dictionary of Polymers, Volume 1 edited by Jan W. Gooch*

(1) The penetration of a substance into the mass of another substance by chemical or physical action. (2) The process by which energy is dissipated within a specimen placed in the field of radiant energy. Since some part of the impinging energy may be transmitted through the specimen and another part be reflected, the energy absorbed will almost always be less than the impinging. (3) The adhesion of a substance to the surface of a solid or liquid. Pollutants are extracted by adsorption on activated carbon or silica gel.

*Environmental Engineering Dictionary, edited by C. C. Lee*

(1) The process by which one substance is taken into the body of another substance. (2) The penetration of molecules or ions of one or more substances (gas, liquid or solid) into the interior of another substance. (3) A process in which one material (the absorbent) takes up and retains another (the absorbate) with the formation of a homogenous mixture, having the attributes of a solution. Chemical reaction may accompany or follow absorption. (4) In a chemical process, a chemical combination of one substance by another. (5) In a physical process, it is the penetration of a substance into or through another, or the phenomena which gas transfers molecules to (dissolved in) a liquid phase. (6) In radiation, the uptake of radiant energy by a substance. During this process, the radiant energy is irreversibly transformed into some other form of energy, e.g. thermal, mechanical, or electrical energy. It is the process by which the number and energy of particles or photons entering a body of matter are reduced by interaction with the matter. (7) The process by which substances in gaseous, liquid or solid form are assimilated, or taken up, by other substances.

*fire.org.uk/glossary.htm*

1) A mechanical phenomenon wherein one substance penetrates into the inner structure of another, as in absorbent cotton or a sponge.

2) An optical phenomenon wherein atoms or molecules block or attenuate the transmission of a beam of electromagnetic radiation.

*Hghouston.com*

A process in which Quid molecules are taken up by a liquid or solid and distributed throughout the body of that liquid or solid.



*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

(1) The process in which fluid molecules are taken up, and distributed through, a solid or another liquid. (2) The reduction of the intensity of any radiation as a result of energy conversion in the material, such as sound to heat. (3) An optical effect whereby the energy of a photon of light is taken into a substance by electronic polarisation or electron excitation.

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Proces s pomoću kojega se smanjuje intenzitet elektromagnetskoga vala pri međudjelovanju s tvari.**

*Inda.org*

A process in which one material (the absorbent) takes in or absorbs another (the absorbate).

The liquid or a gas is absorbed into a porous substance and retained.

*Naftni rječnik – Perić*

(1) U kemijskoj tehnologiji – Upijanje plinova čvrstim tvarima ili tekućinama ili upijanje tekućina čvrstim tvarima, pri čemu se upijanje vrši cijelim volumenom (masom) tvari koja upija, tj. apsorbirana tvar prodire i homogeno se raspoređuje po čitavom volumenu druge tvari (za razliku od adsorpcije, koja se odvija samo na površinskom sloju). Adsorpcija je operacija kemijske tehnike koja se u naftnoj industriji primjenjuje za izdvajanje težih tekućih ugljikovodika iz masnog prirodnog plina i plina koji nastaje pri preradi sirove nafte te za uklanjanje vode (dehidraciju) i sumpornih plinova iz prirodnog plina; v. adsorption. (2) U fizici – svaki proces (mehanizam) pri kojem se energija, npr. elektromagnetska ili seizmička, pretvara u toplinu (toplinsku energiju). (3) U optici – smanjenje jakosti (intenziteta) svjetla pri njegovu prolazanju kroz apsorbirajuću tvar ili pri njegovu odbijanju (refleksiji) od površine. U kristalima se adsorpcija može mijenjati s promjenom duljine vala ili smjera kolebanja transmitiranog svjetla.

*resil.com/c.htm*

A process in which one material (the absorbent) takes in or incorporates another material (the absorbate) within itself A process in which one material (the absorbent) takes in or incorporates another material (the absorbate) within itself; such as the absorption of moisture by fibres.

*schools.look4.net.nz/science/chemistry/index/index\_html*

**1.** Penetration of molecules into the bulk of a solid or liquid, forming either a solution or compound. Absorption can be a chemical process (a strong solution of NaOH absorbs CO<sub>2</sub> from the air) or a physical process (palladium absorbs hydrogen gas). **2.** Capture and transformation of energy by a substance; for example, copper looks reddish because it absorbs blue light. An absorbent captures another material and distributes it throughout; an adsorbent captures another material and distributes it on its surface only.

*.texacoursa.com/glossary/index.html*

The assimilation of one material into another; in petroleum refining, the use of an absorptive liquid to selectively remove components from a process stream.

### **Absorption centres**

#### **Apsorpcijska središta**

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

Dye molecules, transition metal ions or small particles of metal that cause attenuation of light of certain wavelengths to be more heavily attenuated and so giving a transparent body a resultant colour.

### **Absorption characteristics**

#### **Apsorpcijska svojstva**

*Dictionary of Ceramic Science and Engineering, By Ian McColm*

A combination of factors affecting the ability of a plastic material to absorb infrared radiation, e.g. crystal structure, reflectivity and transmissivity.

### **Absorption coefficient**

#### **Apsorpcijski koeficijent**

*Answers.com*

A numeric measure of the amount of light energy that water itself and the dissolved and suspended substance within the water take up, which results in less energy or less light penetrating down into a water body. It can be measured for some or all of the wavelengths of a light ray and is reported by meter. It is an inherent optical property.

*com/library/glossary/a/bldef-a41.htm*

Absorption of radiant energy for a unit concentration through a unit pathlength for a specified wavelength and angle of incidence and viewing.

*Concise dictionary of material science, by Vladimir Novikov*

Quantity describing a reduction of the integrated intensity of some radiation passed through a homogeneous substance. See linear absorption coefficient and mass absorption coefficient.

*Glossary of Rubber and Rubber-like Materials, ASTM publication, Philadelphia 1956*

A constant used in measuring the absorptivity of a substance for X-rays. The natural logarithm of the ratio of the incident to the emerging intensity of the normal X-ray beam passing through unit thickness of a material.

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

#### **Koeficijent kojim se izražava eksponencijalno smanjenje intenziteta elektromagnetskoga vala pri prolazu kroz apsorbirajuću tvar.**

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

A parameter, characteristic of the interaction of a beam of radiation with the material under investigation.

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

A measure of a material ability to absorb radiation. It is equal to the ratio of absorbed radiant flux to the incident flux. For a layer of material, the ratio of the flux absorbed between the entrance and exit surfaces to the flux leaving the entry surface is the internal absorptance.

*Naftni rječnik – Perić*

#### **Za plin – volumen plina apsorbiran jediničnim volumenom otapala.**

*netweb.princeton.edu/perl/webwn?s=absorption coefficient*

a measure of the rate of decrease in the intensity of electromagnetic radiation (as light) as it passes through a given substance; the fraction of incident radiant energy absorbed per unit mass or thickness of an absorber

*spiderbites.about.com/links/detail\_composite\_1.htm*

Absorption of radiant energy for a unit concentration through a unit pathlength for a specified wavelength and angle of incidence and viewing.

### **Absorption colorimeter**

*Wikipedia*

In physical chemistry, a colorimeter is a device used to test the concentration of a solution by measuring its absorbance of a specific wavelength of light. To use this device, different solutions must be made, and a control (usually a mixture of distilled water and another solution) is first filled into a cuvette and placed inside a colorimeter to calibrate the machine. Only after the device has been calibrated can you use it to find the densities and/or concentrations of the other solutions. You do this by repeating the calibration, except with cuvettes filled with the other solutions. The filter on a colorimeter must be set to red if the liquid is blue. The size of the filter initially chosen for the colorimeter is extremely important,

as the wavelength of light that is transmitted by the colorimeter has to be same as that absorbed by the substance.

### **Absorption curve**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

(1) A graphic representation of the amount of radiant energy absorbed by a material as a function of the wavelength. (2) A graphic representation of the thickness of the absorbing material as a function of the intensity of radiant energy transmitted through the material.

### **Absorption edge**

#### **Apsorpcijski prag, Apsorpcijski rub**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Nagla promjena apsorpcijskoga koeficijenta kemijskoga elementa pri promjeni energije upadnoga elektromagnetskog zračenja. Apsorpcijski rub opaža se kada je energija upadnoga zračenja jednaka energiji emitiranoga zračenja.**

### **Absorption hygrometer**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

An apparatus used to measure atmospheric humidity, using a drying agent to absorb and then weigh the amount of water vapour in a known quantity of air.

*Encyclopedic Dictionary of Polymers, Volume 1 edited by Jan W. Gooch*

Any one of several types of hygrometers containing a hygroscopic substance, the change in length, thickness or mass of which is a measurable index of the humidity of the atmosphere.

*Glossary of Rubber and Rubber-like Materials, ASTM publication, Philadelphia 1956*

Any one of several types of hygrometers containing a hygroscopic substance the length, thickness or weight of which is a measurable index of the humidity of the atmosphere. Usually such devices are graduated directly, either in relative humidity or in regain of stock in process, and are continuously indicating.

### **Absorption kinetics**

*Dataphysics.de*

time dependant behavior of absorption, depending on surface characteristics, temperature, porosity and thickness of the material

### **Absorption line**

#### **Apsorpcijska linija, Linija apsorpcije**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Spektralna linija koja nastaje apsorpcijom elektromagnetskoga zračenja u pari ili plinu  
Apsorpcijska linija ima određenu valnu duljinu.**

### **Absorption mechanism**

#### **Mehanizam apsorpcije**

*Environmental Engineering Dictionary, edited by C. C. Lee*

Absorption is a mass transfer operation. Mass transfer can be compared to heat transfer in that both occur because a system is trying to reach equilibrium conditions. For example, in heat transfer, if a hot slab of metal is placed on top of a cold slab, heat energy will be transferred from the hot slab to the cold slab, until both are at the same temperature (equilibrium). In absorption, mass instead of heat is transferred as a result of a concentration difference, rather than a heat-energy difference. Absorption continues as long as a concentration difference exists between the liquid and the gas from which material is being removed. In absorption, equilibrium depends on the solubility of the material in the liquid.

### **Absorption peak**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

The wavelength at which the degree of absorption by a particular molecular substance is at a maximum.

### **Absorption rate**

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

The amount of water absorbed by a body during partial or complete immersion for a specific period, usually 1 min, expressed in grams per unit of time for a sample of specified size.

### **Absorption spectrophotometer**

#### **Apsorpcijski spektrofotometar**

*Environmental Engineering Dictionary, edited by C. C. Lee*

An instrument for measuring the absorption spectral lines and bands in a gas or liquid.

### **Absorption spectrophotometry**

*composite.about.com/library/glossary/a/bldef-a43.htm*

Measurement of the amount of radiant energy absorbed as a function of wavelength or frequency. Ultraviolet radiant energy can be employed as the source of incident radiant energy, and it has been found that certain groupings of atoms in organic compounds influence the intensity and location of the absorption bands in the ultimate spectrum.

*spiderbites.about.com/links/detail\_composite\_1.htm*

Measurement of the amount of radiant energy absorbed as a function of wavelength or frequency.

*Whittington's dictionary of plastics, by James F. Carley, Lloyd R. Whittington*

An analytical technique using the absorption of electromagnetic radiation by a specimen (or solution) as a property related to the composition and quantity of a given material in the specimen. The radiation is usually in the ultraviolet, the visible or the near-infrared portions of the electromagnetic spectrum. When the absorbing medium is in the gaseous state, the absorption spectrum consists of dark lines or bands, being the reverse of the emission spectrum of the absorbing gas. When the absorbing medium is in the solid or liquid state, the spectrum of the transmitted light shows broad dark regions which are not resolvable into lines and have no sharp or distinct edges. In quantitative spectrophotometry, the intensity of the radiation passing through a specimen or solution is compared with the intensity of the incident radiation and with the radiation passing through a nonabsorbing solvent (blank). The percentage absorbed by the solution is exponentially related to the solute's concentration (Beer's law).

### **Absorption spectroscopy**

#### **Apsorpcijska spektroskopija**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

The study of radiant energy that is characteristically absorbed by a particular substance.

*Antoine.frostburg.edu*

Measuring the concentration and structure of a substance by measuring the amount of electromagnetic radiation the sample absorbs at various wavelengths.

*ASM materials engineering dictionary, by Joseph R. Davis*

The branch of spectroscopy treating the theory, interpretation and application of spectra originating in the absorption of electromagnetic radiation by atoms, ions, radicals and molecules.

*Environmental Engineering Dictionary, edited by C. C. Lee*

The study of the absorption spectral lines and bands in a gas or liquid.

[everyscience.com/Chemistry/Glossary/A.php](http://everyscience.com/Chemistry/Glossary/A.php)

spectroscopy that relies upon measuring the radiation absorbed by a sample as it is excited to higher energy levels.

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Spektroskopija u kojoj se intenzitet elektromagnetskoga zračenja za određene valne duljine smanjuje prolaskom kroz uzorak neke tvari, što se očituje tamnim linijama u spektru.**

[schools.look4.net.nz/science/chemistry/index/index\\_html](http://schools.look4.net.nz/science/chemistry/index/index_html)

A technique for determining the concentration and structure of a substance by measuring the amount of electromagnetic radiation the sample absorbs at various wavelengths.

### **Absorption spectrum**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

A diagram, graph, or other display, indicating the degree to which a substance absorbs radiant energy with respect to wavelength.

[alcwin.org/Chemical\\_Terms\\_Description-2-A.htm](http://alcwin.org/Chemical_Terms_Description-2-A.htm)

The spectrum of dark lines against a light background that results from the absorption of selected frequencies of electromagnetic radiation by an atom or molecule.

[Antoine.frostburg.edu](http://Antoine.frostburg.edu)

A plot that shows how much radiation a substance absorbs at different wavelengths<sup>‡</sup>.

Absorption spectra are unique for each element and compound and they are often used as chemical "fingerprints" in analytical chemistry. The spectrum can be represented by a plot of either absorbance or transmittance versus wavelength, frequency, or wavenumber.

[Chem.ubc.ca](http://Chem.ubc.ca)

A plot of wavelength (x-axis) versus absorbance (y-axis) obtained from colorimetric analysis when polychromatic light is used.

[Chemmeddl.org](http://Chemmeddl.org)

A representation of the quantity of light a material absorbs in the form of the absorbance plotted as a function of wavelength, frequency, or energy.

*Encyclopedic Dictionary of Polymers, by Jan W. Gooch*

The spectrum obtained by the examination of light from a source, itself giving a continuous spectrum, after this light has passed through an absorbing medium in the gaseous state. The absorption spectrum will consist of dark lines or bands, being the reverse of the emitting spectrum of the absorbing substance. The spectrum of the transmitted light shows broad dark regions that are not resolvable into lines and have no sharp or distinct edges when the absorbing medium is in the solid or liquid state.

[Learnchem.net](http://Learnchem.net)

spectra resulting from the adsorption of radiant energy by molecules and ions

### **Absorption test**

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

A test in which a body is immersed in a selected or specified solution for a designated time and temperature, and the ratio of the weight of solution absorbed to the weight or the volume of the dry specimen is reported as absorbency of the body.

### **Absorption tinting strength**

*Encyclopedic Dictionary of Polymers, Volume 1 edited by Jan W. Gooch*

Relative change in the absorption of a standard white pigment when a specified amount of absorbing pigment, black or chromatic, is added. This is basically the common definition of tinting strength.

### **Absorptive action**

*Academy of textiles and flooring*

It is not always possible to obtain a quick release when attempting to remove stains. But, with patience a slow release of a staining material may be achieved. Given a sufficient amount of time some staining materials will migrate from the fiber onto other substances. Example: Absorbent action would be the use of absorbent powder or a weighted towel being placed on a stain.

### **Absorptivity**

*Dictionary of Ceramic Science and Engineering, By Ian McColm*

The fraction of the incident radiant energy, at a given wavelength, absorbed by a unit area of surface. A black body has absorptivity of unity. If the absorptivity varies with wavelength, the surface is termed coloured.

*chemistry.about.com/od/chemistryglossary/a/absorptivitydef.htm*

Absorptivity is the absorption cross section or extinction coefficient. Absorptivity varies with wavelength and is defined as the absorbance of a solution per unit path length and concentration:

*Encyclopedic Dictionary of Polymers, by Jan W. Gooch*

The fraction of the radiant energy falling upon a body, which is absorbed or transformed into heat. This ratio varies with the character of the surface and the wavelength of the incident energy. It is the ratio of the energy absorbed by any substance to that absorbed under the same conditions by a black body

*Environmental Engineering Dictionary, edited by C. C. Lee*

Absorbance divided by the product of concentration of the substance and the sample path length. (See – Molar absorptivity).

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

A fraction of the incident radiant energy, at a given wavelength, absorbed by a unit area of surface. A black body has the absorptivity of unity. If the absorptivity varies with wavelength, the surface is termed coloured.

*ncsu.edu/chemistry/resource/glossary.html*

$a$ , is the proportionality constant that appears in Beer's law.  $A = a * b * C$ , where  $A$  = absorbance, which is unitless,  $b$  = cell thickness in distance units and  $C$  = concentration. Units on absorptivity are distance<sup>-1</sup> concentration<sup>-1</sup>.

*schools.look4.net.nz/science/chemistry/index/index\_html*

The absorbance of a solution per unit of path length and per unit concentration;  $a = A/(bc)$  where  $a$ ,  $A$ ,  $b$ , and  $c$  are the absorptivity, absorbance, path length, and concentration, respectively. Absorptivity varies with wavelength of the incident light.

*wordnetweb.princeton.edu/perl/webwn?s=absorptivity*

the property of a body that determines the fraction of the incident radiation or sound flux absorbed or absorbable by the body

### **Abstract**

*ariadnefabric.com/Glossary.html*

used of forms/patterns which have been formalised so as to be no longer representational or naturalistic.

*Artlandia*

Unrecognizable forms and layouts. In the textile business the word "abstract" is used to describe a nonobjective motif that cannot be described any other way.

### *Rotaltes*

refers to a design in the abstract style, i.e. one that represents a general form and not an accurate representation of a subject.

### **Abundance, Abundancy, Occurence**

#### **Brojnost, Rasprostranjenost, Zastupljenost; Izobilje, Mnoštvo, Obilje**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Udio određenoga nuklida u odnosu na druge nuklide istoga elementa u danome uzorku.**

### **Abundance ratio**

#### **Izotopni omjer**

*Naftni rječnik – Perić*

Omjer broja atoma jednog izotopa i ukupnog broja atoma u smjesi izotopa.

### **Abutilon, Abutilon fibre**

*Dictionaryoftext00*

Strong and glossy fiber yielded by the abutilon species in South America and India; used as hemp substitute for ropes.

*Texsute*

Fibre from the stalks of one-year-old or older plants of the mauve family. Stalk contains between 10% and 30% fibre and is used in the production of sackcloth, rope and paper. Also known in the trade as Chinese jute. The plant originates in eastern Asia.

### **AC generator**

#### **Generator izmjeničnog napona**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Uređaj koji mehaničku energiju rotacije pretvara u izmjenični električni napon s periodičnom ovisnošću o vremenu. Generator izmjeničnoga napona se temelji na Faradayevu zakonu elektromagnetske indukcije.**

### **Acacia**

*Britannica concise encyclopedia, Answers.com*

Any of the approximately 800 species of trees and shrubs that make up the genus *Acacia*, of the mimosa family. Acacias are native to tropical and subtropical regions of the world, particularly Australia and Africa. Sweet acacia (*A. farnesiana*) is native to the southwestern U.S. Acacias have distinctive, finely divided leaflets, and their leafstalks may bear thorns or sharp spines at their base. Their small, often fragrant, yellow or white flowers have many stamens apiece, giving each a fuzzy appearance. On the plains of southern and eastern Africa, acacias are common features of the landscape. Several species are important economically, yielding substances such as gum arabic and tannin, as well as valuable timber.

*Weavers.org.uk*

A genus of shrubs and trees found in tropical climates and used in textile production in many forms. Acacia senegal, found in eastern and western parts of Africa, acacia arabica, found in India, yielding the best quality gum arabic (see gum arabic) and acacia farnesiana produces gum used normally in India for textile printing. Acacia leucophloea yields a coarse bast fibre used in the manufacture of string, ropes and nets. Acacia catchu known as catchu, cutch or kutch, gives a dark brownish grey when an iron mordent is used. Alum mordent will produce a yellow-brown and a mixture of tin and cream of tartar gives a darker brownish-yellow.

*Wikipedia.org*

Acacia is a genus of shrubs and trees belonging to the subfamily Mimosoideae of the family Fabaceae, first described in Africa by the Swedish botanist Carolus Linnaeus in 1773. The

plants tend to be thorny and pod-bearing, with sap and leaves typically bearing large amounts of tannins. The name derives from *akis* (akis) which is Greek for a sharp point, due to the thorns in the type-species *Acacia nilotica* ("Nile Acacia") from Egypt. Various species of acacia yield gum. True gum arabic is the product of *Acacia senegal*, abundant in dry tropical West Africa from Senegal to northern Nigeria. *Acacia arabica* is the gum-Arabic tree of India, but yields a gum inferior to the true gum-Arabic. The bark of various Australian species, known as wattles, is very rich in tannin and forms an important article of export; important species include *Acacia pycnantha* (Golden Wattle), *Acacia decurrens* (Tan Wattle), *Acacia dealbata* (Silver Wattle) and *Acacia mearnsii* (Black Wattle).

### **Academic gown, Academic dress**

*Kencollins.com*

Academic gowns come in three forms corresponding to bachelors, masters, and doctoral degrees. The doctoral robe sometimes appears in church. It has puffy sleeves with three stripes on the forearm, indicating that the wearer possesses a doctoral degree. When they are used in church, academic gowns are most often worn without the square cap or the long, decorative hood down the back that normally complete the outfit. If there is a hood, the colors indicate the wearer's field of study and alma mater.

*Wikipedia.org*

Academic dress or academical dress is a traditional form of clothing for academic settings, primarily tertiary and sometimes secondary education, worn mainly by those that have been admitted to a university degree (or similar) or hold a status that entitles them to assume them (e.g. undergraduate students at certain old universities).[1] It is also known as *academicals* and, in the United States, as *academic regalia*. Contemporarily, it is commonly seen only at graduation ceremonies, but formerly academic dress was, and to a lesser degree in many ancient universities still is, worn on a daily basis. Today the ensemble generally consists of a gown (also known as a robe) with a separate hood, and usually a cap (generally either a mortarboard, a tam, or a bonnet) which are distinctive to each institution. Academic dress is also worn by members of certain learned societies and institutions as official dress.

### **Acca**

*Dry goods*

[From Acre, a city in Syria, whence it was first obtained] A rich figured silk fabric decorated with gold, in use during the fourteenth century.

### **Accelerant, Activator, Cocatalyst, Promoter**

**Kokatalizator, Promotor, Ubrzavalo, Ubrzivač**

*vidi*

**Accelerator**

*Ca-bc.com/zip\_internacional/usedmach/education/*

A chemical used to speed up chemical or other processes. For example, accelerants are used in dyeing triacetate and polyester fabrics.

*composite.about.com/library/glossary/a/bldef-a53.htm*

A substance used in small proportions which hastens a reaction, usually by acting in conjunction with a catalyst or a curing agent. An accelerator is sometimes used in the polymerization of thermoplastics, but is used most widely in curing systems for thermosets.

*composite.about.com/library/glossary/c/bldef-c1126.htm*

Chemicals which themselves are feeble catalysts, but which greatly increase the activity of a given catalyst.

*Dictionary of composite materials technology, by Stuart M.Lee, Google Books*

Chemicals which themselves are feeble catalysts, but which greatly increase the activity of a given catalyst.



*edge-sweets.com/polyurethane-equipment/glossary/A-glossary.html*

Normally used in the chemical sense of being a substance used to increase the rate of a chemical reaction, often used synonymously with the term catalyst, amine catalyst, or tin catalyst.

*Elastoproxy.com*

A chemical used in small amounts to speed up curing or vulcanization of elastomeric compounds. (Example, tetramethyl thiuram monosulfide, 0.5 parts.)

*Emcoplastics.com*

A substance that hastens a reaction, particularly one which speeds up the vulcanization of rubber. Also known as Promoter.

*Encyclopedic Dictionary of Polymers, by Jan W. Gooch*

A chemical substance that, in very small concentration, increases the activity of a catalyst. The promoter may itself be a weak catalyst. Examples in the curing of polyester resins are cobalt octoate used as the promoter with methyl ethyl ketone peroxide, and N - alkyl anilines used with benzoyl peroxide.

*Encyclopedic Dictionary of Polymers, Volume 1 edited by Jan W. Gooch*

Chemicals which themselves are rather weak catalysts, but which greatly increase the activity of a given catalyst; also called promoters.

*Fiberset*

A material which, when mixed with a catalyzed resin, will speed up the chemical reaction between the catalyst and resin; either in polymerizing of resins or vulcanization of rubbers. Also known as "promoter".

*Glossary of Paint and Coatings Terminology, M. Pavlič, Ljubljana 2002.*

A substance which, when added in small quantities to a coating material, accelerates reactions, for example crosslinking reactions.

*Justintanks.com*

An additive to polyester resin that reacts with catalyst to speed up polymerization. This additive is required in room temperature cured resins.

*netcomposites.com/glossary*

A material which, when mixed with a catalyzed resin, will speed up the chemical reaction between the catalyst and resin; either in polymerizing of resins or vulcanization of rubbers. Also known as 'promoter'. Examples are diethylaniline, cobalt naphthana and cobalt octoate.

*Npel.iitm.ac.in*

A highly active oxidizing agent used to speed up the chemical reaction (curing) between a catalyst and resin. Examples include diethylaniline, cobalt naphthanate and cobalt octoate.

*oldnc.3dn.ru/Docs/Harper.C.A.Plastics\_Materials\_and\_Proc-s.pdf*

A promoter is a chemical that greatly increases the activity of a given catalyst. Often the promoter itself is a weak catalyst. Promoters are often used in thermosetting polyester formulations. Examples of a promoter in this case would be organic cobalt salts and dimethyl- or diethylaniline that operate with peroxide catalysts such as methyl ethyl ketone peroxide or benzoyl peroxide.

*Polymer science dictionary, by Mark. s.m. Alger, Google books*

(a) A component of a rubber compound which is usually present in sulphur vulcanisation. Its function is not only to speed up the vulcanisation, but also to increase the efficiency of vulcanisation by encouraging the useful mono- and disulphide crosslinks to form. A very wide range of materials is available, the most important being thiazoles, sulphenamides, dithiocarbamates, guanidines and thiuram disulphides. (b) An activator for an organic peroxide free radical initiator, which enables polymerisation to be readily performed at ambient temperature. They are used especially for the room temperature curing of unsaturated

polyester resins, and are variable valency metal salts, usually cobalt, but tin, iron manganese, cerium and vanadium are also used.

*Polymer Technology Dictionary, by Tony Whelan*

A chemical added to speed up a reaction or to reduce the temperature at which a chemical reaction occurs. Usually associated with crosslinking. For example, with the crosslinking of rubber compounds (vulcanisation). Both organic and inorganic accelerators are known. Organic accelerators are now the most important, although the inorganic accelerators, used for crosslinking of rubber compounds, were discovered first. Basic materials such as lime (calcium oxide) or magnesium oxide are also used in novolak-based, phenolic moulding powders as accelerators. The use of accelerators is also common in glass-reinforced plastics (GRP) industry where unsaturated polyester resins are set by, for example, the reaction of a catalyst (an initiator which is often a peroxide) and an accelerator – cobalt naphthenate. Using this systems, curing can be achieved at room temperature.

*schools.look4.net.nz/science/chemistry/index/index\_html*

1. A substance that makes vulcanization of rubber occurs more quickly or at a lower temperature. 2. A substance that makes cross linking in a polymer occur more quickly or at a lower temperature, e. g., accelerators are added to Super Glue to make it set up quickly.

*Struna – Hrvatsko strukovno nazivlje - Polimeri*

**Tvar koja se dodaje u malim količinama radi ubrzanja reakcija kemijskih sustava.**

*Texmachinery*

A substance, usually a swelling agent, which, added to a dye-bath or printing paste, accelerates the diffusion of a dye into a substance. Also may be used to increase the rate of reaction in chemical finishing

*Wikipedia*

Accelerants play a major role in chemistry. Most chemical reactions can be hastened with an accelerant. Accelerants are catalysts which alter a chemical bond, speed up a chemical process, or bring organisms back to homeostasis. An accelerant can be any substance that can bond, mix, or disturb another substance and cause an increase in the speed of a natural, or artificial chemical process.

**Accelerated ageing, Accelerated weathering**

**Ubrzano izlaganje atmosferilijama, Ubrzano starenje**

*Academy of textilesandflooring*

In textile processing and testing, use of controlled environmental conditions to promote rapid physical and/or chemical change in a textile material

*ASM materials engineering dictionary, by Joseph R. Davis*

A process by which the effects of ageing are accelerated under extreme and/or cyclic temperature and humidity conditions. The process is meant to duplicate long-time environmental conditions in a relatively short space of time.

*composite.about.com/library/glossary/a/bldef-a48.htm*

Any set of conditions designed to produce in a short time the results obtained under normal conditions of aging. In an accelerated aging test, the usual factors considered are heat, light, or oxygen, either separately or combined.

*dfmg.com.tw/member/standard/aatcc/aatcc/Glossary.pdf*

use of controlled environmental conditions to promote rapid physical and/or chemical change in a textile material.

*Elastoproxy.com*

A method in which an attempt is made to produce and measure the effects of natural or in-use again in a short period of time. (Example, 72 hours at 100°C (212°F) in air test tube.)

*Glass.org*

A set of laboratory conditions designed to produce in a short time the results of normal Aging. Usual factors included are temperature, light, oxygen and water.

*lamatek.com/about/glossary.shtml*

A test method to represent extended aging of material in a shorter amount of time. For cellular rubber it is the process of artificially increasing time to measure physical property changes. This usually involves exposure to air at an elevated temperature.

*Polymer science dictionary, by Mark. s.m. Alger, Google books*

Attempted speeding up of natural weathering process in materials by exposure to a radiation source (carbon arc, xenon lamp, fluorescent lamp or concentrated sunlight) simulating sunlight, such that the sample receives higher radiation flux than during natural weathering. Owing to the complex participation of factors other than the radiation itself, that bring about degradation during weathering, accelerated weathering is only partially successful in predicting actual weathering behaviour.

*Struna – Hrvatsko strukovno nazivlje - Polimeri*

Starenje koje se provodi u uvjetima ispitne okoline u kraćemu razdoblju radi simuliranja prirodnoga starenja. Stupanj razgradnje obično raste zbog rasta temperature, katkad kombinaciji s porastom tlaka zraka ili kisika, povišenja vlažnosti i/ili promjene ostalih uvjeta.

### **Accelerated aging test**

*adhesivestoolkit.com/Docu-Data/NPLDocuments/P A J/Good Practice Guides/.pdf*

Short-term test designed to simulate the effects of longer-term service conditions.

*Telleborg.com*

Samples of either coated fabric or rubber slabs are placed in thermostatically controlled, circulating air ovens and are aged at 158°F for 72 hours. Then, properties, such as tensile, are determined and compared with the original properties. Various other temperatures and lengths of exposure may be specified.

### **Accelerated depreciation**

#### **Ubrzana amortizacija**

*Ijf.hr, Institut za javne financije*

**Amortizacijski plan prema kojemu se dugotrajna imovina poduzeća otpisuje brže od stvarne ekonomske amortizacije.**

### **Accelerated test**

*composite.about.com/library/glossary/a/bldef-a48.htm*

A test procedure in which conditions are intensified to reduce the time required to obtain a deteriorating effect similar to one resulting from normal service conditions.

*Npel.iitm.ac.in*

Procedure in which conditions are magnified to reduce the time required to obtain a result, or to reproduce the deteriorating effects of normal service conditions in a very short time period.

### **Accelerated weathering**

*vidi*

### **Accelerated ageing**

### **Accelerated weathering test**

*composite.about.com/library/glossary/a/bldef-a48.htm*

Tests designed to simulate, but at the same time to intensify and hasten, the destructive action of natural outdoor weathering on a material. They involve the exposure of a material to

artificially produced components of natural weather, e.g., light, heat, cold, water vapor and rain, which are arranged and repeated in a given cycle.

*finishwiz.com/definitions.htm*

A test designed to simulate but at the same time intensify and accelerate the destructive action of natural outdoor weathering.

*Trelleborg.com*

Samples are exposed in the Weatherometer of specified design and under specific conditions. The weatherometer simulates rain and sunshine by the use of water spray and carbon arcs.

Physical tests and visual examination indicate the deterioration that has occurred at the end of a particular period of exposure. Military specifications frequently outline minimum physical test requirements, which are to be met after a specified period of exposure. Comparative results are an indication of comparative outdoor weather ability.

### **Accelerating potential**

#### **Potencijal ubrzavanja**

*IUPAC . Category: Final, Mass Spectrometry Terms, 2013*

Electrical potential difference used to impart translational energy to ions.

Note: Accelerating voltage is often used as a synonym, but the terms are equivalent only in the case of a static accelerating potential.

### **Acceleration**

#### **Akceleracija, Ubrzanje, Ubrzavanje**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Vektorska veličina, derivacija brzine po vremenu. Ubrzanje je druga derivacija vektora položaja po vremenu.**

### **Acceleration stress**

*answers.com/topic/acceleration-stress*

In a wire rope (or the like), the additional stress imposed as a result of the acceleration of the load.

*jamarco.com/09a\_Rope/rope\_glossary.htm*

Additional stress placed on rope due to increasing the velocity of load.

### **Accelerator, Smasher**

#### **Akcelerator, Ubrzivač**

*vidi*

**Accelerant**

*Environmental Engineering Dictionary, edited by C. C. Lee*

In radiation science, a device that speed up charged particles, such as electrons or protons. These fast particles can penetrate matter and are known as radiation.

### **Accelerator activator**

#### **Aktivator ubrzavala**

*Polymer Technology Dictionary, by Tony Whelan*

A material, or a combination of materials, which activates an accelerator or makes it more efficient. For example, zinc oxide and a fatty acid, such as stearic acid.

### **Accelerator deactivation**

#### **Deaktiviranje ubrzavala**

*Polymer Technology Dictionary, by Tony Whelan*

With some fillers (for example silica) the accelerator efficiency is reduced because of surface bonding. Cure may be retarded and, in order to maintain a given cure rate, additional

accelerator is required. Glycols can also be used to coat the filler before the accelerator is added, as glycols are preferentially absorbed. However, the use of glycols for this purpose has diminished – silane coupling agents are now preferred.

### **Accelerator**

*resil.com/c.htm*

A device for rapid evaluation of abrasion resistance of textiles.

### **Acceptability**

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

The quality of a product in terms of its ability to meet minimum standards specified for its use.

### **Acceptable daily intake**

#### **Prihvatljiva dnevna doza**

*Environmental Engineering Dictionary, edited by C. C. Lee*

An estimate of the daily exposure dose that is likely to be without deleterious effect even if continued exposure occurs over a lifetime.

### **Acceptable quality level, Acceptance quality level, (AQL)**

*composite.about.com/library/glossary/a/bldef-a54.htm*

The maximum percent defective that, for purposes of sampling inspection, can be considered satisfactory as the process average.

*Dictionary of Ceramic Science and Engineering, By Loran O'Bannon*

The maximum and minimum limits of quality standards between which a product is considered to be acceptable for its intended use.

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

The maximum percent defective that, for purpose of sampling inspection, can be considered satisfactory as the process average.

*Environmental Engineering Dictionary, edited by C. C. Lee*

The maximum percentage of failing samples that, for the purpose of sampling inspection, can be considered satisfactory as the process average

*fashiondex.com/howtos/Glossary.php*

(AQL) The maximum percent defective (or maximum number of defects per hundred units) that, for purpose of sampling inspection, can be considered satisfactory as a process average.

MIL-STD-105E, ISO 2859-1 (1999).

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

The maximum and minimum limits of quality standards between which a product is considered to be acceptable for its intended use.

*Nordstromsupplier.com*

The maximum percent defect, that for the purpose of sampling inspection, can be considered satisfactory as a process average.

*resil.com/c.htm*

the process average at which the risk of rejection is called the Producer's risk. Also referred as AQL. In acceptance sampling, the maximum fraction of non-conforming items at which the process average can be considered satisfactory; the process average at which the risk of rejection is called the Producer's risk.

### **Acceptance**

#### **Prihvaćanje**

*Englesko-engleski glosar poslovnih termina, finansija i nekretnina, T. Popović*

The unconditional agreement to an offer. This creates the contract. Before acceptance, any offer can be withdrawn, but once accepted the contract is binding on both sides. Any conditions have the effect of a counter offer that must be accepted by the other party.

### **Acceptance level**

#### **Razina prihvaćanja**

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

A test level above or below which test specimens are acceptable, as contrasted to a rejection level.

### **Acceptance limits**

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

The test levels used in the sorting of specimens that establish the rating group into which a material or product under test should be assigned.

### **Acceptance number**

#### **Prihvatljivi broj**

*Dictionary of Ceramic Science and Engineering, By Ian McColm*

The maximum number of defective pieces allowable in a sample of specified size.

### **Acceptance standard**

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

A specimen of a material or product selected to be used as a reference standard or indicate the acceptable measure of quality, weight, extent, value or quality of a material or product.

### **Acceptance test**

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

A test to determine the conformance of a product to a purchase order or contract, or to determine the degree of uniformity of the product, as basis for its acceptance by a purchaser.

### **Accepted reference value**

[bisfa.org/booklets/BISFA\\_Terminology2009.pdf](http://bisfa.org/booklets/BISFA_Terminology2009.pdf)

A value that serves as an agreed-upon reference for comparison, and which is derived as:

1. a theoretical or established value, based on scientific principles
2. an assigned or certified value, based on experimental work of some national or international organisation
3. a consensus or certified value, based on collaborative experimental work under the auspices of a scientific or engineering group
4. when 1), 2) or 3) are not available, the expectation of the (measurable) quantity, ie the mean of a specified population of measurements

Note: In the case of a sample or consignment of fibre or yarn, then only 4) applies

### **Accesscontrol**

#### **Nadzor nad pristupom**

*ISACA® Glossary of Terms English - Slovenian*

The processes, rules and deployment mechanisms which control access to information systems, resources and physical access to premises.

### **Access method**

#### **Metoda pristupa**

*ISACA® Glossary of Terms English - Slovenian*

The technique used for selecting records in a file, one at a time, for processing, retrieval or storage. The access method is related to, but distinct from, the file organization, which determines how the records are stored.

### **Access rights**

#### **Pravo pristupa**

*ISACA® Glossary of Terms English - Slovenian*

The permission or privileges granted to users, programs or workstations to create, change, delete or view data and files within a system, as defined by rules established by data owners and the information security policy

### **Accessibility**

*cat.inist.fr/?aModele=afficheN&cpsidt=3237586*

Accessibility of functional groups is an important concept in the mixing of polymers and involves factors such as chain connectivity, steric shielding, etc., all of which tend to limit the number of interchain contacts formed.

*Polymer science dictionary, by Mark S. M. Alger*

The percentage of a polymer accessible to direct chemical reaction. It applies largely to crystalline polymers in which chemical reactive groups, in the crystalline or other regions, do not readily react due to the inability of the reagent to diffuse to the reaction sites. The term applies especially to cellulose, in which the accessibility of the hydroxyl groups is measured by deuterium or tritium exchange. When these groups are reacted (e.g. acetylated) with the cellulose merely swollen with solvent, accessibility will be under 100%. Accessibility is altered by any treatment which affects morphology, such as gross or fine structure, crystallite size or extent of crystallinity. Thus in cotton accessibility is around 35%, increased to about 55% on mercerisation, and to about 75% in regenerated viscose film.

### **Accession tax**

#### **Porez na stečevinu**

*Ijf.hr, Institut za javne financije*

**Porez koji se ubire na ukupno nasljedstvo i darove što ih neka osoba primi tijekom svojega životnog vijeka.**

### **Accessories**

*Aadore.com*

A small accompanying item of dress, especially of women's dress in designer fashion circles.

*Ascotformalwear.com*

Tie, cummerbund/vest, shirts, gloves, hats, shoes, handkerchiefs, cuff links, studs, cane, spats, socks, suspenders or ascot.

*fibre2fashion*

additional ornamentation to accompany the garment in order to create a certain look/ image. (shoes, jewelries etc.)

*haute couture jargon*

hats, gloves, purse, etc. (usu) matching to compliment an ensemble.

*men-clothing.net/glossary.html*

Any additional ornamentation that accompanies a garment in order to create a specific and more fashionable look/image. (Eg: shoes, belts, sunglasses etc. )

*Texworld*

1. (Clothing) A subsidiary item of dress, such as a scarf, belt, gloves, umbrella.

2. (Sewing machine) A supplementary part or component of a sewing machine used to diversify its function.

*Wikipedia*

Fashion accessories are decorative items that supplement one's garment, such as jewelry, gloves, handbags, hats, belts, scarves, watches, sunglasses, pins, stockings, bow tie, leg warmer, leggings, necktie, suspenders, and tights. Accessories add color, style and class to an outfit, and create a certain look, but they may also have practical functions. Handbags are for carrying, hats protect the face from weather elements, and gloves keep the hands warm. Many accessories are produced by clothing design companies. However, there has been an increase in individuals creating their own brand name by designing and making their own label of accessories. Accessories may be used as external visual symbols of religious or cultural affiliation: Crucifixes, Jewish stars, Islamic headscarves, skullcaps and turbans are common examples. Designer labels on accessories are perceived as an indicator of social status. Accessories are also available in the form of bracelets, necklaces and earring.

### **Accident site**

#### **Mjesto akcidenta**

*Environmental Engineering Dictionary, edited by C. C. Lee*

The location of an unexpected occurrence, failure or loss, either at a plant or along a transportation route, resulting in release of hazardous materials.

### **Accidental error**

*vidi*

### **Random error**

### **Accidental release**

*Environmental Engineering Dictionary, edited by C. C. Lee*

**(1) Any sudden or nonsudden release of petroleum from an underground storage tank that results in a need for corrective action and/or compensation for bodily injury or property damage neither expected nor intended by the tank owner or operator. (2) The unintentional spilling, leaking, pumping, purging, emitting, emptying, discharging, escaping, dumping or disposing of a toxic material into the environment in a manner which is not in compliance with the plant's federal, state or local environmental permits and that create toxic concentrations in the air that are a potential health threat to the surrounding community.**

### **Accommodation, Habituation**

#### **Privikavanje, Prilagodba, Prilagodavanje, Privikavanje**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Promjena žarišne daljine oka usljed promjene udaljenosti objekta koji se gleda.**

### **Accordion, Accordion fabric**

*Academy of textiles*

A patterned circular knit fabric of two or more colors produced on single-needle machines. The pattern is achieved by combinations of knit, tuck and welt stitches.

*fibrefashion*

1x1 rib knit alternating with a 2x2 rib.

*HAND BOOK ON GLOSSARY OF TEXTILE TERMS, BUREAU OF INDIAN STANDARDS NEW DELHI 110 002, UDC 001.4/677 (021) ISBN 81-7061-009-5*

A weft-knitted fabric showing a figure design in two or more colours, which is produced on one set of needles by knitting, tucking and missing; and in which tuck loops are introduced to eliminate long lengths of floating thread at the back.

*Minwoordenboek*

A weft-knitted fabric, showing a figure design in two or more colours, which is produced on one set of needles by knitting, tucking, and missing, and in which tuck loops are introduced to eliminate long lengths of floating thread at the back.



*sava.in/textile-glossary-collection/FC-fabrics*

Weft knitted fabric, with a figured design in two or more colors, that is produced on one set of needles by knitting and missing, and where long floats on the back of the fabric are avoided by introducing tuck stitches.

### **Accordion pleats**

*Academy of textiles*

A series of narrow, regularly spaced, pressed folds in fabrics, usually running in the lengthwise direction in skirts and dresses. Accordion pleats show the entire upper surface of the fabric, as opposed to true pleats.

*Beloved linens*

made by folding alternately in and out creating projecting pleats. (the kind used for smocking)

*Fashion glossary*

Pleats have folds resembling the bellows of an accordion. The pleats are close together and the depth is equal from waist to hem. The edges of accordion pleats all face one direction.

*fibrefashion*

fine regular narrow pleats created by sewing or pressing minute darts into fabric; sunray pleats. cf. box-pleats.

*Probertencyclopedia*

Accordion pleats are a type of fine, narrow, regular pleating created by sewing or pressing minute darts into the fabric of dresses and skirts, usually from the waistband towards the hem. Accordion pleating was used in the construction of ball gowns during the late 19th century. By the turn of the century it was an integral part of many styles and became especially popular during the 1920s and 1950s.

*Wikipedia*

Accordion pleats are the most basic form of pleat, consisting of a series of permanent folds of equal width in alternating opposite directions. When pressed flat in one direction, accordion pleats become knife pleats. Accordion pleats are rarely used in dressmaking, but are used to make folding fans.

### **Accordion shade**

*Adshade*

Accordion Style sun shades folds like an accordion with straps on both ends for storage. It comes in different styles and materials: air bubble plastic, mylar (foam) for its light weight, or cardboard for economy. It comes in either standard or jumbo size.

*Fabricdictionary*

Shades made of accordion pleats sharply creased at regular intervals horizontally across their width. Accordion shades take up relatively little room when drawn up to uncover the window. See pleats and accordion pleats.

### **Accountability**

#### **Odgovornost**

*Lean and Green Glossary, Dwayne, 2008*

Being answerable to all stakeholders, including any natural or social systems affected by a business such as customers, employees, and communities .

### **Accounting**

*beechmontcrest.com/accountingdefinitions.htm*

Accounting is the process of measuring economic information and communicating it to the decision-makers and stakeholders in an organization. Accounting information is used by an

organizations managers, investors, employees, and creditors. Government bureaus like the IRS and the Securities and Exchange Commission (SEC) also use accounting information.  
*businessdictionary.com/definition/accounting.html*

Practice and body of knowledge concerned primarily with (1) methods for recording transactions, (2) keeping financial records, (3) performing internal audits, (4) reporting and analyzing financial information to the management, and (5) advising on taxation matters. It is a systematic process of identifying, recording, measuring, classifying, verifying, summarizing, interpreting and communicating financial information. It reveals profit or loss for a given period, and the value and nature of a firm's assets, liabilities and owners' equity. Accounting provides information on the (1) resources available to a firm, (2) the means employed to finance those resources, and (3) the results achieved through their use.

*illinoisbusinessattorney.com/glossary.html*

the recording, classifying, summarizing and interpreting in a significant manner and in terms of money, transactions and events of a financial character.

*investorwords.com/48/accounting.html*

The systematic recording, reporting, and analysis of financial transactions of a business. The person in charge of accounting is known as an accountant, and this individual is typically required to follow a set of rules and regulations, such as the Generally Accepted Accounting Principles. Accounting allows a company to analyze the financial performance of the business, and look at statistics such as net profit.

### **Accra silk**

#### **Akra svila**

*Global Silk Industry\_ A Complete Source Book - R.k.datta - Google Books.html*

**Fabric used for church vestments and royal ropes.**

### **Accretion**

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

Increase in size of a mass by a process of external additions.

### **Accrual principle**

#### **Obračunsko načelo**

*Ijf.hr, Institut za javne financije*

**Evidentiranje proračunskih transakcija u vrijeme kada su (obveze/potraživanja) nastale, a ne samo kada su plaćene.**

### **Accumulator**

*Inda.org*

A temporary storage device used in a fabric production line that enables the line to continue

producing fabric while the full wound-up roll of fabric is doffed and replaced by an empty

wind-up roll. In operation, the fabric is festooned over two parallel series of rollers of which

the top series is elevated and stationary and the bottom series is counterbalanced and able to move up and down. This accumulator is positioned between the production line output and the fabric wind-up. During doffing, when no fabric is being wound up and the roll removed, the bottom series of rollers starts to drop towards the floor thereby taking up output from the production unit.

*Polymer Technology Dictionary, by Tony Whelan*

A device used to store hydraulic fluid under pressure or a part of the processing equipment (for example in blow moulding) where melt is stored until required.

### **Accumulator head**

#### **Glava međuspremnik**

*Polymer Technology Dictionary, by Tony Whelan*

Used in extrusion blow moulding to store melt until required: fits into the discharge end of the extruder. Used to stop excessive parison sag when producing large blow mouldings: the melt is stored until required, in the accumulator head, when it is ejected rapidly – usually by means of ram or piston.

### **Accuracy**

*vidi*

### **Precision**

### **Accuracy class**

#### **Razred točnosti**

*Međunarodni mjeriteljski rječnik – Osnovni i opći pojmovi i pridruženi nazivi (VIM), 2009*

Razred mjerila ili mjernih sustava koja zadovoljavaju određene mjeriteljske zahtjeve kojima je svrha održavanje mjernih pogriješaka i nesigurnosti kojese epripisuju mjerilu u utvrđenim granicama pod utvrđenim radnim uvjetima. Napomena 1.: Razred točnosti obično se označuje dogovorenim brojem ili znakom. Napomena 2.: Razred točnosti primjenjuje se i na tvarne mjere.

### **Accuracy error**

*vidi*

### **Systematic error**

### **Accuracy in testing, Testing accuracy, Accuracy of measurement**

*Antoine.frostburg.edu*

Accuracy is the correctness of a single measurement. The accuracy of a measurement is assessed by comparing the measurement with the true or accepted value, based on evidence independent of the measurement. The closeness of an average to a true value is referred to as "trueness".

*bisfa.org/booklets/BISFA\_Terminology2009.pdf*

The closeness of agreement between a test result and the accepted reference value

*Chemmeddl.org*

The extent to which an experimental value agrees with true value for a quantity.

*composite.about.com/library/glossary/a/bldef-a60.htm*

(1) Generally, the quality or freedom from mistake or error, the concept of exactness, or the extent to which the result of a calculation or a measurement approaches the true value of the actual parameter. (2) The degree of conformity or agreement of a measured or calculated value to some recognized standard or specified value.

[epressure.com/contentmgr/showdetails.php/id/10429](http://epressure.com/contentmgr/showdetails.php/id/10429)

The combined error due to nonlinearity, nonrepeatability, and hysteresis expressed as a percentage of full scale output.

[Merinoinnovation.com](http://Merinoinnovation.com)

Measure of the closeness of a test result to the true value. The true value of a measured quantity can only be determined by measurement systems that are calibrated by direct reference to primary references such as length, weight, force, etc.

*Naftni rječnik – Perić*

**Tijesno slaganje (closeness of agreement) između mjernog rezultata (result of measurement) i istinite (prave) vrijednosti mjerene veličine (true value of measurand), v. accuracy.**

[Ne-wea.org](http://Ne-wea.org)

A measure of how close a measured value is to the true value. Assessed by means of percent recovery of spikes and standards.

[nhml.com/resources\\_NHML\\_Definitions.cfm](http://nhml.com/resources_NHML_Definitions.cfm)

The degree of agreement of a measured value with the true or correct value for the quantity being measured.

[Npteliitm.ac.in](http://Npteliitm.ac.in)

The degree of conformity of a measured or calculated value to some recognized standard or specified value. Accuracy involves the systematic error of an operation.

*Texworldf*

The degree of agreement between the true value of the property being tested and the average of the many observations made using the test method.

Note: The word 'bias' is also used in this sense.

### **Accuracy of a method**

[belupo.hr/Default.aspx?sid=6941](http://belupo.hr/Default.aspx?sid=6941)

It is the degree of consistency between the actual and the value obtained by applying the analytical method a number of times. The accuracy is determined by the minimum of three concentration points within the working area. If the method must be accurate to a wider concentration range (eg. In the method of release of the active component), then the method checks the accuracy at a number of concentration points. What will be the value of concentration and eligibility criteria to choose for this test depends primarily on the use of analytical methods and quality requirements to be laid down in the analytical regulation. The estimated accuracy of the method expressed as a percentage of yield (recovery). The limits are set to yield, depending on the analyte concentration in a measuring solution, application methods, and analytical characteristics of the method used for this purpose (eg. Liquid chromatography, spectrophotometry, titration, and the like.).

### **Accuracy of measurement, Measuring accuracy**

#### **Mjerna točnost, Točnost mjerenja**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Razlika između izmjerene i općeprihvaćene vrijednosti fizičke veličine. Točnost je to veća što je razlika između izmjerene i općeprihvaćene vrijednosti fizičke veličine manja.**

**Accurate**

## Točan

*Polymer Technology Dictionary, by Tony Whelan*

Refers to the closeness of a measured value to the true or accepted value. For most experimental measurements, a true value is not known so the accuracy cannot really be determined. The accuracy of a measurement may be expressed in terms of error or of the percentage error.

## Accurate data

### Točni podaci

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Rezultat mjerenja fizičke veličine vrlo blizak općeprihvaćenoj vrijednosti te veličine.**

## Accurate mass

### Točna masa

*IUPAC . Category: Final, Mass Spectrometry Terms, 2013*

Experimentally determined mass of an ion of known charge.

Note 1: Can be used to determine elemental composition to within limits defined by both the accuracy and precision of the measurement.

Note 2: Accurate mass and exact mass are not synonymous. Accurate mass refers to a measured mass, and exact mass refers to a calculated mass.

## Aceta

*Academy of textiles*

German artificial wool resembling Vista, one of the many varieties of Zellwolle;

*Polymer science dictionary, by Mark. s.m. Alger, Google books*

Tradename for cellulose acetate rayon.

*resil.com/c.htm*

Spun acetate containing casein. Increased strength, rough surfaces, and crimp are achieved by changing physical properties of the fibre.

## Acetal

*vidi*

## Polyacetal

### Acetal resin

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

A family of highly crystalline thermoplastics prepared by copolymerising trioxane with small amounts of comonomer which randomly distributes carbon-carbon bond in the polymer chain. These bonds, as well as hydroxyethyl terminal units, give the acetal copolymers a high degree of thermal stability and resistance to strong alkaline environments.

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

Rigid engineering thermoplastics produced by the addition polymerisation of aldehydes through the carbonyl function, yielding unbranched polyoxymethylene chains of great length. Among the strongest and stiffest of all thermoplastics, the acetal resins are characterised by good fatigue life, resilience, low moisture sensitivity, high solvent and chemical resistance, and good electrical properties. They can be glass reinforced and may be processed by conventional injection moulding and extrusion techniques, and fabricated by welding methods used for other plastics. Also known as polyformaldehyde.

*Encyclopedic Dictionary of Polymers, Volume 1 edited by Jan W. Gooch*

A thermoplastic produced by the addition polymerisation of an aldehyde, through the carbonyl function, yielding unbranched polyoxymethylene chains of great length. The acetal resins are among the strongest and stiffest of all the thermoplastics, and are characterised by good fatigue life, resilience, low moisture sensitivity, high resistance to solvents and chemicals and good electrical

properties. They may be processed by conventional injection moulding and extrusion techniques, and fabricated by welding methods used for other thermoplastics. Their main area of application is industrial and mechanical products, e.g. gears, rollers and many automotive parts.

### **Acetaldehyde**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

CH<sub>3</sub>CHO. A colourless liquid with a pungent, fruity odour, soluble in water and alcohol. Melts at -121<sup>0</sup>C, and boils at 20.8<sup>0</sup>C. An oxidation product of ethanol that is used to manufacture acetic acid.

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

A liquid synthesised by the hydration of acetylene, the oxidation of ethyl alcohol, or the oxidation of saturated hydrocarbons or ethylene. It is a highly reactive intermediate used for the production of thermosetting resins and with polyvinyl alcohol to form polyvinyl acetal resins. Also known as ethanal, ethyl aldehyde and acetyl aldehyde.

*Encyclopedic Dictionary of Polymers, Volume 1 edited by Jan W. Gooch*

CH<sub>3</sub>CHO. Low boiling liquid (21<sup>0</sup>C). A colourless, flammable liquid, made by the hydration of acetylene, the oxidation or dehydrogenation of ethyl alcohol, or the oxidation of saturated hydrocarbons or ethylene.

### **Acetamide**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

CH<sub>3</sub>CONH<sub>2</sub>. Colourless, deliquescent monoclinic crystals, slightly soluble in water and very soluble in alcohol. Melts at 82.3<sup>0</sup>C, and boils at 221.2<sup>0</sup>C. Used in organic synthesis and as a general solvent.

### **Acetate, Acetate fibre**

*Bisfa.org*

Cellulose acetate fibre in which less than 92 %, but at least 74 %, of the hydroxyl groups are acetylated. Secondary cellulose acetate: (C<sub>6</sub>H<sub>7</sub>O<sub>2</sub> (OX)<sub>3</sub>)<sub>n</sub>, where X = H or CH<sub>3</sub>CO and the degree of esterification is at least 2,22 but less than 2,76

*Ca-bc.com/zip\_internacional/usedmach/education/*

A manufactured fiber in which the fiber-forming substance is cellulose acetate (FTC definition). Acetate is manufactured by treating purified cellulose refined from cotton linters and/or wood pulp with acetic anhydride in the presence of a catalyst. The resultant product, cellulose acetate flake, is precipitated, purified, dried, and dissolved in acetone to prepare the spinning solution. After filtration, the highly viscous solution is extruded through spinnerets into a column of warm air in which the acetone is evaporated, leaving solid continuous filaments of cellulose acetate. The evaporated acetone is recovered using a solvent recovery system to prepare additional spinning solution. The cellulose acetate fibers are intermingled and wound onto a bobbin or shippable meter cheese package, ready for use without further chemical processing. In the manufacture of staple fiber, the filaments from numerous spinnerets are combined into tow form, crimped, cut to the required length, and packaged in bales. Acetate fibers are environmentally friendly. CHARACTERISTICS: Acetate fabrics are breathable, luxurious in appearance, fast-drying, wrinkle and shrinkage resistant, crisp or soft in hand depending upon the end use. END USES: The end uses of acetate include women's and men's sportswear, evening wear, lingerie, dresses, blouses, robes, coats, other apparel, linings, draperies, bedspreads, upholstery. Trade name – Dacel.

*Carpet glossary*

A low-cost, man-made (regenerated cellulose) fiber made by treating wood pulp with acetic acid, acetic anhydride and acetone, to produce a viscous, honey-colored liquid, which is extruded and hardened to form filaments. Acetate has good sun resistance and low moisture absorbency (dries rapidly, resists shrinkage), and is used in upholstery fabric, particularly as a blended fiber, and in lamp shades. It is easily abraded and weakened by strong solutions of alkalis, acids, and oxidizing bleaches. Acetate is dissolved completely by acetone (nail polish remover).

*chezchazz.fibes*

Acetate is both natural and synthetic. It is formed by a compound of refined plant cellulose or wood pulp and acetic acid. It is long-wearing, drapes nicely, and resists wrinkling, making it a good choice for window treatments, bedding, and pillows.

*Crystalsfabric dictionary*

A manufactured fiber formed by compound of cellulose, refined from cotton linters and/or wood pulp, and acetic acid that has been extruded through a spinneret and then hardened. Acetate is a fiber primarily used in fabrics for pants and jacket linings. Acetate is silky, thin, dries fast and is resistant to shrinking and stretching. Acetate fabrics also drape and dye well.

*E-textil*

Acetate, one of the first manufactured fibres is soft and has a crisp feel. It has the lustrous appearance of silk and excellent drapability. It is not a strong fibre, as its resistance to abrasion is poor. It does resist shrinkage, moths, and mildew and does not absorb moisture readily. Its yarns are pliable and supple and will always spring back to their original shape. It is fast drying and when heated becomes more pliable. Acetone and alcohol dissolve acetate fibres. Special dyes are required if it is to be coloured. Today Acetate can be found in a variety of colours. \*Uses: Organic solvents such as perfume and nail polish remover. Clothing, uniforms, lingerie, carpets, bathing suits, draperies, automobile upholstery, fillings for pillows, interlinings.

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

Metallic salts derived from acetic acid by interaction of the metallic oxide, hydroxide, or carbonate with the acid, or the esters derived by interaction of alcohols with acetic acid, which include the common esters of ethyl, propyl, isopropyl, butyl and amyl acetates, etc.

*Encyclopedic Dictionary of Polymers, Volume 1, edited by Jan W. Gooch*

(1) Generic name for fibres from cellulose acetate. (2) A salt or ester of acetic acid. (3) A generic name for cellulose acetate plastics, particularly for their fibres. Where at least 92% of the hydroxyl groups have been acetylated, the term *triacetate* may be used as the generic name of the fibre. (3) A compound containing the acetate group –  $\text{CH}_3\text{COO}$  (e.g. polyvinyl acetate).

*fibre2fashion*

(fibre) (generic name), the term used to describe fibres of cellulose ethanoate (acetate) wherein between 74% and 92% of the hydroxyl groups of the original cellulose are ethanoylated (acetylated). Purified cellulose is ethanoylated (acetylated) by ethanoic anhydride (acetic anhydride) in the presence of a catalyst (such as sulphuric acid or perchloric acid) in a solvent such as dichloromethane (methylene chloride) or ethanoic (acetic) acid. The reaction proceeds until primary cellulose acetate containing 60% of combined ethanoic acid is formed. Secondary cellulose acetate is formed from the primary acetate by partial hydrolysis. It is obtained by adding water in excess of that required to react with the residual ethanoic anhydride, which thus allows the hydrolysis to take place.

*jandofabrics.com/proddetail-dictionary.asp*

a manufactured fiber formed by compound of cellulose, refined from cotton linters and/or wood pulp, and acetic acid that has been extruded through a spinneret and then hardened.

Acetate is a fiber primarily used in fabrics for pants and jacket linings. Acetate is silky, thin, dries fast and is resistant to shrinking and stretching. Acetate fabrics also drape and dye well.

*Newcitycleaners*

Often blended with rayon, acetate is a synthetic fiber used for luxurious fabrics such as taffeta and satin. Two Swiss brothers, Drs. Camille and Henri Dreyfus, began chemical research in a shed behind their father's house in Basel, Switzerland. In 1905, Camille and Henri developed a commercial process to manufacture cellulose acetate, a compound that seemed to offer a broad and untapped commercial potential. The Dreyfus brothers initially focused on cellulose acetate film, which was then widely used in celluloid plastics and motion picture film. By 1913, Camille and Henri's studies and experiments had produced excellent laboratory samples of continuous filament acetate yarn. The first commercial production of acetate fiber in the United States was in 1924 by the Celanese Corporation.

*Peruvian connection*

A silky fiber made from cellulose (wood pulp). Often blended with other fibers to give sheen and drape, or woven into a satin fabric for linings.

*poslovni-savjetnik.com/propisi/tehnicki-zahtjevi-za-proizvode-i-ocjena-sukladnosti/pravilnik-o-sirovinskom-sastavu-i-nazivi*

**clulozno acetatno vlakno u kojemu je acetilirano manje od 92%, ali najmanje 74% hidroksilnih skupina**

*Softtextile*

A manufactured fiber in which the fiber-forming substance is cellulose acetate. Acetate fabrics are fast-drying, wrinkle and shrinkage resistant, crisp or soft in hand depending upon the end use, and luxurious in appearance.

*Teampuma*

the generic name for cellulose acetate fibres in which less than 92% but at least 74% of the hydroxyl groups are acetylated. NOTE: These fibres were formerly referred to as "diacetate".

*Technical centre*

A manufactured fiber formed by a compound of cellulose, refined from cotton linters and/or wood pulp, and acetic acid that has been extruded through a spinneret and then hardened.

*TheSewingDictionary.com - Your Sewing Dictionary and Glossary On the Web*

A shiny fabric that is not very strong, dries quickly and rarely shrinks.

Triacetate is a newer acetate that doesn't seem to melt like acetate. Can be melted with nail polish remover. Acetate may be combined with other fabrics or used alone to make a silk-look fabric. It is often used for linings and has a wonderful drape to it.

### **Acetate dyes**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

(1) One of a group of water-insoluble azo dyes, capable of dyeing acetate fibres. (2) One of a group of water-insoluble amino azo dyes made soluble with formaldehyde and bisulphite.

*Answers.com*

Any of a group of water-insoluble azo or anthroquinone dyes used for dyeing acetate fibers. Any of a group of water-insoluble amino azo dyes that are treated with formaldehyde and bisulfate to make them water-soluble.

*resil.com/c.htm*

Acetate yarns and fabrics, when developed first, required a special type of dye since they could not be coloured with types then known. Acetate yarns and fabrics, when developed first, required a special type of dye since they could not be coloured with types then known. A separate group of dyes was developed which became known as acetate colours. These dyes



have been found useful for dyeing synthetic fibres. The term Disperse dyes has been widely adopted to describe them more accurately.

### **Acetate fabric**

*About.com*

Acetate is a synthetic or manufactured fiber with a silky luxurious appearance. It dries easily and resists absorbing moisture. Most acetate fabrics will need to be dry cleaned for their care. Some newer pieces of clothing are being made with acetate knits. Some of these newer pieces are able to be washed. Acetate is a frequently used fabric in clothing and home furnishing uses.

*resil.com/c.htm*

Woven and knitted fabrics, made of acetate fibres. Comfortable to wear and has very good draping properties. Not affected by moths or mildew. Inflammable, but many fabrics, especially those for furnishings, are made with greatly reduced flammability. On its own, acetate is not hardwearing. It creases, but tends to recover well. Often mixed with other fibres including cotton, viscose and nylon, to produce very interesting textures and colourings. Used for a wide variety of uses including dress-fabrics, linings, ribbons and furnishing materials.

### **Acetate process**

#### **Acetatni postupak**

*Encyclopedic dictionary of named processes in chemical technology, by Alen E. Comnis*

A general name for processes for making cellulose acetate fibers. Cellulose is acetylated, dissolved in acetone, and spun into fibers by injecting through orifices into heated chambers. Cellulose mono-acetate is made by acetylating with a mixture of acetic acid, acetic anhydride, and sulfuric acid as the catalyst. Cellulose tri-acetate is made in a similar fashion, but using perchloric acid as the catalyst, and dry-spinning from a solution in ethanol/methylene chloride. Cellulose tri-acetate fibers were first made commercially by Courtaulds in London in 1950.

### **Acetate rayon**

#### **Acetatni rejon**

*Encyclopedic Dictionary of Polymers, Volume 1, edited by Jan W. Gooch*

Cellulose acetate made from preswelling cellulose pulp with acetic acid, followed by the esterification with the mixture of sulphuric acid and acetic anhydride, the diacetate dissolved in acetone, the triacetate in methylene chloride, and dry spun into fibres

### **Acetic acid, Ethanoic acid, Vinegar acid**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

CH<sub>3</sub>COOH. A clear, colourless rhombic liquid, hygroscopic and crystallising into deliquescent needles, miscible in water, alcohol and acids. Melts in 16.6<sup>0</sup>C and boils at 117.9<sup>0</sup>C. It is used in the production of plastics, dyes, food additives and photographic chemicals.

*composite.about.com/library/glossary/a/bldef-a68.htm*

Monobasic colorless liquid used in the manufacture of metallic acetates for the production of driers, and in the manufacture of acetate esters employed as solvents or plasticizers.

*Ca-bc.com/zip\_internacional/usedmach/education/*

An organic acid (CH<sub>3</sub>COOH) widely used in textile applications. It is used in textile wet processing, dyeing and printing, and in the manufacture of cellulose acetate and cellulose triacetate.

*carpetbuyershandbook.com/carpet-glossary/glossary-a/*

A volatile, colorless, pungent liquid acid (C<sub>2</sub>H<sub>4</sub>O<sub>2</sub>) that is the chief acid of white vinegar (5% acetic, pH 3) and is used in the synthesis of acetate fiber. Many acid spotters are comprised of 5% - 7% acetic acid.

*Encyclopedic Dictionary of Polymers, Volume 1 edited by Jan W. Gooch*

CH<sub>3</sub>COOH. A colourless liquid with the familiar taste and odour of vinegar. It is synthesised today by oxidation of acetaldehyde in the presence of a catalyst. Among the uses of acetic acid in the plastics industry is the manufacture of cellulosic plastics, such as cellulose acetate (CA), CA butyrate and CA propionate, vinyl acetate, and acetate esters for plasticizing thermoplastics.

*.icknowledge.com/glossary/a.html*

chemical formula CH<sub>3</sub>COOH, a carboxylic acid, acetic acid is a relatively weak acid mainly used as a pH buffer. Acetic acid is commonly sold as a 100% solution and has a density of 1.05Kg/L.

*list.emich.edu/~dyers/pdfs/dyeglossary.PDF*

Glacial acetic acid (GAA) is commonly sold for industrial purposes. It is almost pure acetic acid (that is, it contains almost no water), pungent smelling and flammable. It is called "glacial" because it will freeze at around 17°C. Concentrated solutions of acetic acid are dangerous, and must be handled with care. Acetic acid is used in many dyeing processes. It is much less expensive than vinegar where large amounts are required. Often a 56% solution (in water) is called for. Acetic acid is a weak acid (see acid, weak - this does not mean "mild").

*maiwa.com/stores/supply/glossary.html*

Used in small quantities to help wool and silk absorb the mordant. Can also be used in afterbaths to alter dye colors.

*Wikipedia*

Acetic acid, also known as ethanoic acid, is an organic acid, giving vinegar its sour taste and pungent smell. Its structural formula is represented as CH<sub>3</sub>COOH. Pure, water-free acetic acid (glacial acetic acid) is a colourless liquid that absorbs water from the environment (hygroscopy), and freezes below 16.7 °C (62 °F) to a colourless crystalline solid. Acetic acid is corrosive, and its vapour causes irritation to the eyes, a dry and burning nose, sore throat and congestion to the lungs. It is a weak acid because at standard conditions for temperature and pressure the dissociated acid exists in equilibrium with the undissociated form in aqueous solutions, in contrast to strong acids, which are fully dissociated. Acetic acid is one of the simplest carboxylic acids (the second-simplest, next to formic acid). It is an important chemical reagent and industrial chemical that is used in the production of polyethylene terephthalate mainly used in soft drink bottles; cellulose acetate, mainly for photographic film; and polyvinyl acetate for wood glue, as well as synthetic fibres and fabrics. In households diluted acetic acid is often used in descaling agents. In the food industry acetic acid is used under the food additive code E260 as an acidity regulator. The global demand of acetic acid is around 6.5 million tonnes per year (Mt/a), of which approximately 1.5 Mt/a is met by recycling; the remainder is manufactured from petrochemical feedstocks or from biological sources.

### **Acetic acid value**

*Texworld*

In the characterisation of cellulose acetates, the percentage by mass of combined ethanoyl (acetyl) radical expressed as ethanoic (acetic) acid.

### **Acetic anhydride**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

$(\text{CH}_3\text{CO})_2$ . A colourless, combustible liquid with a strong, pungent odour that reacts with water to form acetic acid. Melts at  $73,1^{\circ}\text{C}$  and boils at  $139,55^{\circ}\text{C}$ . Widely used as an acetylating agent.

*Ca-bc.com/zip\_internacional/usedmach/education/*

Anhydrous acetic acid  $[(\text{CH}_3\text{CO})_2\text{O}]$ . It is used in the acetylation process in the manufacture of cellulose acetate.

*Encyclopedic Dictionary of Polymers, Volume 1 edited by Jan W. Gooch*

A pungent liquid, may be thought of condensation product of two molecules of acetic acid by removal of one molecule of water, though, in fact, it is made by the reaction of acetic acid with ketene,  $\text{CH}_2=\text{C}=\text{O}$ . It is a strong acetylating agent, used for many of the same purposes as its parent acid. It is an important reagent which has wide application in the manufacture of many raw materials and intermediates for the paint trade, and also in analysis. It is used for the acetylation of the hydroxyl groups, as in the manufacture of cellulose acetate.

*Materials handbook: an encyclopedia for managers, technical professionals, by George Stuart Brady, George S. Brady*

A colourless liquid with boiling point at  $139,5^{\circ}\text{C}$ . A powerful acetylating agent and is used in making cellulose acetate. It forms acetic acid when water is added.

*Whittington's dictionary of plastics, by James F. Carley, Lloyd R. Whittington*

This pungent liquid may be thought of as the condensation product of two molecules of acetic acid by removal of one molecule of water, though, in fact, it is made by reaction of acetic acid with ketene,  $\text{CH}_2=\text{C}=\text{O}$ . It is a strong acetylating agent, used for many of the same purposes as its parent acid.

*Wikipedia*

Acetic anhydride is the chemical compound with the formula  $[(\text{CH}_3\text{CO})_2\text{O}]$ . Commonly abbreviated  $\text{Ac}_2\text{O}$ , it is one of the simplest acid anhydrides and is a widely used reagent in organic synthesis. It is a colorless liquid that smells strongly of acetic acid, which is formed by its reaction with the moisture in the air. As indicated by its organic chemistry,  $\text{Ac}_2\text{O}$  is mainly used for acetylations leading to commercially significant materials. Its largest application is for the conversion of cellulose to cellulose acetate, which is a component of photographic film and other coated materials.

#### **Acetic oxidation (Acedox)**

##### **Kisela oksidacija, Acedox postupak**

*Encyclopedic dictionary of named processes in chemical technology, by Alen E. Comnis*

A pulp-bleaching process using peracetic acid as the oxidant.

#### **Acetone, Dimethylketone, 2-propanone**

*Answers.com*

A chemical compound,  $\text{CH}_3\text{COCH}_3$ . A colorless liquid with an ethereal odor, it is the first member of the homologous series of aliphatic ketones. Its physical properties include boiling point  $56,2^{\circ}\text{C}$  ( $133,2^{\circ}\text{F}$ ), melting point  $-94,8^{\circ}\text{C}$  ( $-138,6^{\circ}\text{F}$ ), and specific gravity 0.791.

Acetone is used as a solvent for cellulose ethers, cellulose acetate, cellulose nitrate, and other cellulose esters. Cellulose acetate is spun from acetone solution. Lacquers, based on cellulose esters, are used in solution in mixed solvents including acetone.

*Ca-bc.com/zip\_internacional/usedmach/education/*

Dimethyl ketone ( $\text{CH}_3\text{COCH}_3$ ). One of the most powerful organic solvents. Acetone dissolves secondary cellulose acetate and other derivatives of cellulose. It is miscible with water and has a low boiling point ( $55-56^{\circ}\text{C}$ ).

*Carpet glossary*

A volatile, flammable dry solvent ( $\text{C}_3\text{H}_6\text{O}$ ) used primarily to dissolve synthetic resins, such as nail polish, airplane glue, acrylic paint, etc. Acetone dissolves acetate fiber instantly!

*Environmental Engineering Dictionary, edited by C. C. Lee*

A colourless, volatile liquid with a sweet odour. It is considered the least toxic solvent in industry. It can occur naturally. It is used in the production of lubricating oils, chloroform, pharmaceuticals, pesticides, paints, varnishes and lacquers. If present in water, it is more likely to volatilise or biodegrade before bioaccumulating or absorbing to sediments. Acetone will also readily volatilise and biodegrade in soil. It is also a common laboratory contaminant, so its presence in a sample does not always indicate its presence in the environment.

*georgiastrait.org/?q=node/504*

A moderately toxic, highly volatile and flammable solvent used in nail polish removers, glues, paint strippers and other products. Considered less toxic than aromatic hydrocarbons such as toluene and xylene, it causes symptoms similar to but slightly more severe than those of ethanol.

*.icknowledge.com/glossary/a.html*

chemical formula  $\text{CH}_3\text{COCH}_3$ , acetone is a flammable solvent used primarily to clean-up positive photoresist. Acetone is commonly sold as a 100% solution and has a density of 0.79Kg/L. Skin contact and breathing acetone vapor should be avoided.

*Kreisler.com*

A ketone group solvent that is used to dissolve polyester resins. Used to a large extent for clean up of tools in fiberglass operations.

*Polymer science dictionary, by Mark. s.m. Alger, Google books*

A solvent for most cellulose esters and ethers, many natural resins, polyvinyl acetate, low molecular weight silicones and polystyrene. Somewhat swells polyvinyl chloride, polyethylene, polymethylmethacrylate and some rubbers. Widely used in lacquers and in cellulose acetate fibre production. It is a powerful solvent (but not particularly so for polymers) of high volatility, low cost and low toxicity. Miscible with water in all proportions.

*Wikipedia*

Acetone is the organic compound with the formula  $\text{OC}(\text{CH}_3)_2$ . This colorless, mobile, flammable liquid is the simplest example of the ketones. Acetone is miscible with water, and virtually all organic solvents, and itself serves as an important solvent. More than 3 billion kilograms are produced annually, mainly as a precursor to polymers.[2] Familiar household uses of acetone are as the active ingredient in nail polish remover and as paint thinner and sanitary cleaner/ nail polish remover base. It is a common building block in organic chemistry. In addition to being manufactured, acetone also occurs naturally, even being biosynthesized in small amounts in the human body.

### **Acetone number**

#### **Acetonski broj**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

The numeric expression of a ratio that approximate the degree of polymerisation of substances.

### **Acetone recovery**

*Ca-bc.com/zip\_internacional/usedmach/education/*

A process for reclaiming the acetone solvent from acetate fiber or plastics manufacture. Usually the recovery process consists of adsorption by activated carbon and re-distillation.

### **Acetyl**

*Ca-bc.com/zip\_internacional/usedmach/education/*

The radical ( $\text{CH}_3\text{CO}$ ) of acetic acid.

*Hutchinson*

Organic group that would result from the elimination of hydroxyl from ethanoic acid; it therefore corresponds to the formula  $\text{CH}_3\text{CO}$ . It is not stable in the free state, but is looked upon as the radical of such compounds as acetyl chloride ( $\text{CH}_3\text{COCl}$ ).

*Wikipedia*

In organic chemistry, acetyl (ethanoyl), is a functional group, the acyl of acetic acid, with chemical formula  $-\text{COCH}_3$ . It is sometimes abbreviated as Ac (not to be confused with the element actinium). The acetyl radical contains a methyl group single-bonded to a carbonyl. The carbon of the carbonyl has a lone electron available, with which it forms a chemical bond to the remainder R of the molecule. The acetyl radical is a component of many organic compounds, including the neurotransmitter acetylcholine, and acetyl-CoA, and the analgesics acetaminophen and acetylsalicylic acid (better known as aspirin).

### **Acetyl number**

*composite.about.com/library/glossary/a/bldef-a81.htm*

Number of milligrams of potassium hydroxide required to neutralize the acetic acid set free from 1 gram of acetylated compound when the latter is subjected to hydrolysis.

*Polymer science dictionary, by Mark. s.m. Alger, Google books*

The number of milligrams of potassium hydroxide needed to neutralise the acetic acid set free from 1g of an acetylated compound when it is hydrolysed. In cellulose acetate, it is therefore a measure of the degree of substitution.

### **Acetyl value**

*Ca-bc.com/zip\_internacional/usedmach/education/*

A measure of the degree of esterification or combination of acetyl radicals with cellulose in acetate or triacetate products.

*Encyclopedic Dictionary of Polymers, Volume 1 edited by Jan W. Gooch*

The number of milligrams of potassium hydroxide (KOH) necessary to neutralise the acetic acid liberated by the hydrolysis of 1g of an acetylated compound. It can also be written as a measure of the degree of esterification or combination of acetyl radicals with cellulose in acetate or triacetate products.

*Handbook of fibre chemistry, by Menachem Levin, Google books*

Acetyl value is expressed as the percent acetyl ( $\text{CH}_3\text{CO}$ ) or percent acetic acid ( $\text{CH}_3\text{COOH}$ ) Commercial cellulose triacetate has a DS of about 2,9a to 2,96, which correspond with acetyl values of 44,0 to 44,4% acetic acid. Note that a full triacetate with DS of 3 has an acetyl value of 44,79%, or 62,50% acetic acid. Commercial cellulose acetate or secondary cellulose acetate has DS of 2,4, which corresponds to an acetyl value of 39,3 acetyl, or 54,8% acetic acid. The values could be slightly higher or slightly lower, depending on the particular manufacturer.

*Handbook of near-infrared analysis, by Donald A. Burns, Google books*

The degree of substitution (DS) or acetyl value of cellulose acetate is a measure of the degree of esterification of cellulose. The manual test involves saponification followed by a back titration. NIR has been used to analyse acetyl value by measuring the hydroxyl number directly and then the acetyl value from the OH number results.

### **Acetylated cotton**

*Answers.com*

Mildewproof cotton made by the chemical conversion of part of the raw cotton fiber to cellulose acetate.

*resil.com/c.htm*

Cotton fibre that has been chemically processed so that the fibre has the dyeing and water-resistant qualities of acetate staple. See Acetylation

## **Acetylation**

*About.com*

The substitution of an acetyl radical for an active hydrogen. A reaction involving the replacement of the hydrogen atom of a hydroxyl group with an acetyl radical (CH<sub>3</sub>CO) to yield a specific ester, the acetate. Acetic anhydride is commonly used as an acetylating agent reacting with free hydroxyl groups.

*Ca-bc.com/zip\_internacional/usedmach/education/*

A chemical reaction whereby the acetyl radical is introduced into a compound, as in the conversion of cellulose to cellulose acetate.

*Encyclopedic Dictionary of Polymers, Volume 1 edited by Jan W. Gooch*

Reaction whereby a hydrogen atom of a hydroxyl group is replaced by an acetyl radical (CH<sub>3</sub>CO). It can really be regarded as an ester formation, except that it is a specific ester, the acetate, which is formed. When the acetyl value of castor or other oils containing free hydroxyl groups, or of the reaction mixture of monoglycerides, or alkyds, is determined, acetic anhydride is commonly used as the acetylating agent. This reacts with any free hydroxyl group, whether they occur in the fatty acid chains of the vegetable oil or in unreacted polyhydric alcohols

*fibre2fashion*

the process of introducing an ethanoyl (acetyl) radical into an organic molecule.

*HAND BOOK ON GLOSSARY OF TEXTILE TERMS, BUREAU OF INDIAN STANDARDS NEW DELHI 110 002, UDC 001.4/677 (021) ISBN 81-7061-009-5*

The process of introducing an acetyl radical into an organic compound/polymer containing hydroxyl group.

Note 1 – The term is used to describe the process of combining cellulose with acetic anhydride.

Note 2 -- .A partial acetylation is sometimes applied to cotton the form of fibre, yarn or fabric to give it special properties.

*resil.com/c.htm*

The process by which an acetyl radical is introduced into an organic molecule; the process of combining cellulose with acetic acid. See Partial acetylating.

*Texworld*

The process of introducing an ethanoyl (acetyl) radical into an organic molecule.

Note 1: The term acetylation is used to describe the process of combining cellulose with ethanoic (acetic) acid.

Note 2: A partial acetylation is sometimes applied to cotton in the form of yarn or fibre to change its properties.

*Whittington's dictionary of plastics, by James F. Carley, Lloyd R. Whittington*

The introduction of an acetyl group (CH<sub>3</sub>CO-) into the molecule of an organic compound having an OH or NH<sub>2</sub> group, by treatment with acetic anhydride or acetyl chloride.

## **Acetylene, Ethyne (C<sub>2</sub>H<sub>2</sub>)**

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

A colourless gas derived by reacting water with calcium carbide, or by cracking petroleum hydrocarbons. An important intermediate in the production of vinyl chloride, acrylonitrile, etc.

*Encyclopedic Dictionary of Polymers, Volume 1 edited by Jan W. Gooch*

A colourless but not odourless gas obtained by reacting water with calcium carbide, CaC<sub>2</sub>, or by cracking petroleum hydrocarbons. In the plastics industry, it is an important intermediate in the production of vinyl chloride, neoprene, acrylonitrile and trichloroethylene.

*Environmental Engineering Dictionary, edited by C. C. Lee*

A gas which can be prepared by the action of water on calcium carbide. The starting material for large-scale synthesis of important organic compounds.

*Naftni rječnik – Perić*

Najjednostavniji član alkina (alkinskog reda ugljikovodika). Bezbojan, nestabilan i vrlo zapaljiv plin karakteristična slatka mirisa. Rabi se u organskoj sintezi i za zavarivanje.

Sinonim: ethyne.

### **Acetylene black**

*Dictionary of Ceramic Science and Engineering, By Ian McColm*

A very pure form of graphitic carbon pigment made by controlled combustion of acetylene in air under pressure.

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

A particularly pure form of graphitic, carbon black pigment, made by the controlled combustion of acetylene in air under pressure. It is used as a filler in plastics to impart electrical conductivity (see – Carbon black).

### **Achkan**

*fibre2fashion*

a men's long-sleeved coat-like garment, worn close to the body, reaching down to the knees or even lower, and buttoned in front-middle.

*Men-clothing*

A long-sleeved coat-like garment that reaches down to the knees or even lower, and is buttoned in front-middle. This garment is worn by men on formal occasions.

*Wikipedia*

Achkan is a long jacket worn in South Asia, and together with the Sherwani, is traditionally associated with the Northern Indian, and especially with the Hindu and Sikh aristocracy.

The achkan originated in British India during the 18th century, as a fusion of the Indo-Persian chapkan and chogha with the British frock coat. It was gradually adopted by the native Indian aristocracy, and later by the general population, as a more westernized form of traditional attire. It is long-sleeved coat-like garment, worn close to the body, reaching down to the knees or even lower, and buttoned in front-middle. It can be distinguished from the sherwani by the fact that it is often made from lighter, finer fabrics, and is generally unlined.

### **Achromatic**

*ackland.org/tours/classes/glossary.html*

Having no color or hue; without identifiable hue. Most blacks, whites, grays, and browns are achromatic.

*answers.com/topic/achromatic*

Designating color perceived to have zero saturation and therefore no hue, such as neutral grays, white, or black.

*color-tec.com/1gloss.htm*

(1) for primary light sources, the computed chromaticity of the equal-energy spectrum.

(2) for surface colors, the color of a whitish light, serving as the illuminant, to which adaptation has taken place in the visual system of the observer. (3) perceived as having no hue, that is, as white, gray, or black.

*First2print*

A design without color or hue. Therefore it is in neutral grays, white, or black.

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

(1) Without colour. (2) Capable of reflecting or refracting light without chromatic aberration.

*thinkquest.org/10401/vocab.html*

An optical system that will transmit light without breaking it down into its component colors.

### **Achromatic colour**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

A colour that has brightness, but does not have a hue, such as gray, black or white.

*answers.com/topic/achromatic-color-optics*

A color that has no hue or saturation but only brightness, such as white, black, and various shades of gray.

*gestiondecolor.es/descargas/pdf/colormunki\_Glossary\_en.pdf*

A neutral color (white, gray or black) that has no hue.

*Wikipedia*

Any color that lacks strong chromatic content is said to be unsaturated, achromatic, or near neutral. Pure achromatic colors include black, white and all grays; near neutrals include browns, tans, pastels and darker colors. Near neutrals can be of any hue or lightness. Neutrals are obtained by mixing pure colors with either white or black, or by mixing two complementary colors. In color theory, neutral colors are colors easily modified by adjacent more saturated colors and they appear to take on the hue complementary to the saturated color. Next to a bright red couch, a gray wall will appear distinctly greenish. Black and white have long been known to combine well with almost any other colors; black increases the apparent saturation or brightness of colors paired with it, and white shows off all hues to equal effect.

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

### **Achromatic glass**

Glass that will transmit light without dispersing it into its constituent colours.

### **Achromatic lense**

#### **Akromatična leća**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Optička leća na kojoj ne dolazi do kromatske aberacije**

### **Achromatic prism**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

An optical system consisting of two or more prisms with differing refractive indices causing a minimum dispersion and maximum deviation of light that passes through. Objects viewed through this device will not appear coloured.

### **Acid**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

(1) Any of a fundamental category of compounds whose water solutions are identified by certain common characteristics, such as a sour or biting taste, the ability to turn blue litmus paper red, and the ability to react with bases and certain metals to form salts. Other definitions identify substances as acids by their activities rather than by their properties. (2) containing acid-bearing pollutants, like acid rain, (3) sour tasting, acidic.

*Cartage.org*

an agent able to produce positively charged hydrogen ions (H<sup>+</sup>). [Since the hydrogen ion is a bare proton, it usually exists in a solvated form (such as H<sub>3</sub>O<sup>+</sup>).]

*Chemmeddl.org*



In Arrhenius theory, a species that dissociates to produce hydrogen ions. In Bronsted-Lowry theory, a hydrogen ion donor. In Lewis theory, a species that accepts a pair of electrons to form a covalent bond.

*composite.about.com/library/glossary/a/bldef-a86.htm*

Compounds characterized by ionizable hydrogen atoms. With organic acids or carboxylic acids the ionizable hydrogen atom is directly attached through an oxygen atom, to a carbon atom, e.g., acetic acid  $\text{CH}_3\text{COOH}$ . The inorganic acids, or mineral acids, include  $\text{HCl}$ ,  $\text{HNO}_3$ ,  $\text{H}_2\text{SO}_4$ ,  $\text{H}_3\text{PO}_4$ , etc.

*dow.com/productsafety/overview/glossary.htm#termsF*

A chemical that releases hydrogen ions ( $\text{H}^+$ ) in solution and produces hydronium ions ( $\text{H}_3\text{O}^+$ ). Such solutions have a sour taste, neutralize bases and conduct electricity.

*huntsman.com/pu/Media/PU\_Brochures\_cwp\_glossary.pdf*

A substance which liberates hydrogen ions in solution; substance which contains hydrogen which may be replaced by a metal to form a salt; substance having a tendency to lose protons. Many acids are corrosive, have a sour taste, and turn litmus red.<sup>1</sup>

*list.emich.edu/~dyers/pdfs/dyeglossary.PDF*

Many acids are used in dyeing. They include acetic acid, citric acid, formic acid, hydrochloric acid and sulfuric acid. Several other compounds, such as sodium bisulfate and ammonium sulfate form acids in solution through hydrolysis. When making solutions of acids or when diluting concentrated acids, always add the acid to water, never the other way around. This is because some acids produce a great deal of heat when they mix with water - so much that a small amount of water added to a large amount of acid may actually boil and cause extremely dangerous spattering.

*The-power-washer-advisor.com*

A chemical substance whose properties include the ability to react with bases or alkalis in water solutions to form salts. Acids lower the pH of water solutions. When fatty acids (organic acids) react with alkalis, soap is produced. Many soils are weakly acidic and are more easily removed in alkaline wash solutions.

### **Acid acceptor**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

A compound that stabilises plastic and resin polymers by combining with trace acids that are formed when the polymer decomposes.

*Encyclopedic Dictionary of Polymers, Volume 1 edited by Jan W. Gooch*

A compound that acts as a stabiliser by chemically combining with acid that may be initially present in minute quantities in a plastic, or that may be formed during the decomposition in the resin.

### **Acid ageing**

*Glossary of Printing Terms, by Aatcc*

A process of exposing printed fabrics in an open-width state to a saturated steam atmosphere which contains acid vapours. The usual acids used are acetic or formic. Without acid ageing, some classes of colours would not develop. It is used primarily to react azoic dyes.

Continuous methods may be used if the machine has a holding capacity to give 2 to 4 minutes exposure time at the desired speed. Batch acid ageing cannot be done.

*informaworld.com/index/907412953.pdf*

Ageing in which a volatile acid is present in the vapour around the *fabric*.

### **Acid alcohol**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

A compound containing both a carboxyl (-COOH) group and an alcohol (COH) group.

### **Acid anhydride**

*misterguch.brinkster.net/vocabulary.html*

This is an oxide that forms an acid when you stick it in water. An example is SO<sub>3</sub> - when you add water it turns into sulfuric acid, H<sub>2</sub>SO<sub>4</sub>.

*schools.look4.net.nz/science/chemistry/index/index\_html*

Non-metallic oxides or organic compounds that react with water to form acids. For example, SO<sub>2</sub>, CO<sub>2</sub>, P<sub>2</sub>O<sub>5</sub>, and SO<sub>3</sub> are the acid anhydrides of sulphurous, carbonic, phosphoric, and sulphuric acids, respectively. Acetic anhydride (CH<sub>3</sub>CO)<sub>2</sub>O reacts with water to form acetic acid.

*Wikipedia.org*

An acid anhydride is an organic compound that has two acyl groups bound to the same oxygen atom.<sup>[1]</sup> Most commonly, the acyl groups are derived from the same carboxylic acid, the formula of the anhydride being (RC(O))<sub>2</sub>O. Symmetrical acid anhydrides of this type are named by replacing the word *acid* in the name of the parent carboxylic acid by the word *anhydride*.<sup>[2]</sup> Thus, (CH<sub>3</sub>CO)<sub>2</sub>O is called *acetic anhydride*. Mixed (or unsymmetrical) acid anhydrides, such as acetic formic anhydride (see below), are known.

### **Acid-base indicator**

*answers.com/topic/ph-indicator – Columbia encyclopedia*

organic compounds that, in aqueous solution, exhibit color changes indicative of the acidity or basicity of the solution. Common indicators include *p*-nitrophenol, which is colorless from pH 1 to 5 and yellow from pH 5 to 9; methyl orange, yellow in basic and neutral solutions and reddish below pH 3.7; phenolphthalein, colorless in acid and neutral solutions, pink at about pH 8.5, and purplish at pH 10; and litmus. Most indicators are also used in large amounts for dyeing; small quantities are nonetheless invaluable for use as indicators in chemical laboratories.

*Chem.ubc.ca*

A substance that marks the endpoint of an acid-base titration by changing colour. Most commonly encountered indicator is phenolphthalein which is pink under basic conditions and colourless under acidic conditions.

*chemeddl.org/collections/ptl/PTL/glossary/a.html*

A substance that changes color depending on the concentration of hydrogen ions in solution.

*Wikipedia.org*

A pH indicator is a halochromic chemical compound that is added in small amounts to a solution so that the pH (acidity or alkalinity) of the solution can be determined visually. Hence a pH indicator is a chemical detector for hydronium ions (H<sub>3</sub>O<sup>+</sup>) (or Hydrogen ions (H<sup>+</sup>) in the Arrhenius model). Normally, the indicator causes the color of the solution to change depending on the pH. At 25 degrees Celsius, considered the standard temperature, the pH value of a neutral solution is 7.0. Solutions with a pH value below 7.0 are considered acidic, whereas solutions with pH value above 7.0 are alkali.

### **Acid buffer capacity**

*Chem.ubc.ca*

The number of moles of acid (ie, H<sub>3</sub>O<sup>+</sup> or H<sup>+</sup>) that will lower the pH of a buffer solution by one pH unit.

*chemcollective.org/chem/ubc/exp12/buffers/buffcapacity\_def.php*

The "buffer capacity" quantifies the ability of a buffer solution to absorb strong acid or base. The number of moles of strong acid per litre of buffer required to lower the pH by one unit

has been defined as the acid buffer capacity of a solution. This concept allows us to quantitatively compare different buffer solutions. Similarly, the number of moles of strong base per litre of buffer required to raise the pH by one unit is known as the base buffer capacity of a solution.

*itech.pjc.edu/urbansky/pubs-pdfs/JCEbuffer-cap.pdf*

For an aqueous solution, the buffer capacity is defined in terms of the concentration of acid or base that must be added to influence pH.

### **Acid catalysts**

*Encyclopedic Dictionary of Polymers, Volume 1 edited by Jan W. Gooch*

Acids which may be either organic or inorganic, or salts from these acids which exhibit acidic characteristics. They are used to promote or accelerate chemical reactions, and find special applications in the manufacture and subsequent hardening of synthetic resins. Acid catalysts have been employed in the manufacture of polymerised drying oils, coumarone, urea, phenol- and melamine-formaldehyde resins, and in the cold setting of compositions containing these resins.

### **Acid clay**

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

Clay that releases hydrogen ions on contact with water.

### **Acid cleaners**

*Enviro-solution.com*

A detergent made up in part or wholly with one or more of the acids. Include powdered and liquid bowl cleaners for removing lime encrustation's from urinals, citric acid solutions for damp-wiping bronze trim, and buffered phosphoric acid compounds for cleaning exterior aluminum trim. Acid cleaners are often employed on a regular cycle to neutralize cleaners which are alkaline.

*tileandstonecare.co.uk/glossary\_of\_common\_terms\_tiles\_stone\_groutcare.asp*

Cleaner based on acids for use in removal of cement, rust lime scale and other mineral or calcium based contaminants. Not to be used on acid sensitive surfaces such as marble and limestone.

### **Acid cleaning**

#### **Kiselo čišćenje**

*Environmental Engineering Dictionary, edited by C. C. Lee*

Using acid solutions to clean materials. Some methods of acid cleaning are pickling and oxidising.

### **Acid curing, Acid hardening**

*Encyclopedic Dictionary of Polymers, Volume 1 edited by Jan W. Gooch*

A process of curing or hardening resins through the use of acid catalysts. These are frequently employed with urea- and melamine-formaldehyde resins

### **Acid deposition, Acid precipitation, Acid rain, Acidic deposition**

*consultwebs.com/legal\_glossaries/toxic\_torts/glossary.html*

A complex chemical and atmospheric phenomenon that occurs when emissions of sulfur and nitrogen compounds and other substances are transformed by chemical processes in the atmosphere, often far from the original sources, and then deposited on earth in either wet or dry form. The wet forms, popularly called "acid rain," can fall as rain, snow, or fog. The dry forms are acidic gases or particulates.

*egreenideas.com/glossary.php?group=a*

The deposition of acid constituents to a surface. This occurs not only through precipitation, but also by the deposition of atmospheric particulate matter and the incorporation of soluble gases.

*Environmental Engineering Dictionary, edited by C. C. Lee*

A complex chemical and atmospheric phenomenon that occurs when emissions of sulphur and nitrogen compounds and other substances are transformed by chemical processes in the atmosphere, often far from the original sources, and then deposited on earth in either wet or dry form. The wet forms, popularly called “acid rain”, can fall as rain, snow or fog. The dry forms are acidic gases or particulates.

*Shsu.edu*

a broad term that includes any forms of acids that accumulate in the atmosphere, for instance, acid rain, fog, haze. The term can be used to explain the long term effects of these events on the environment as well as the main causes of acid rain, fog or haze. The term functions as a category that any aspect of anthropogenic acid in the environment can be placed.

### **Acid desizing**

*Wikipedia.org*

Cold solutions of dilute sulphuric or hydrochloric acids are used to hydrolyze the starch, however, this has the disadvantage of also affecting the cellulose fiber in cotton fabrics.

*yousufaj.googlepages.com/afroze\_report.pdf* –

The process of acid steeping is also called grey cloth scouring, as in this process grey cloth is placed in a wet solution (0,5 – 1,0%) of H<sub>2</sub>SO<sub>4</sub> for 4 to 6 hours, at a maximum temperature of 40°C starch becomes soluble in the water. This process is not seldom used due to the fact that it is rather a demineralisation procedure and acid usually damages the fabric.

### **Acid disproportionation**

#### **Kisela disproporcionizacija**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

A state during a chemical reaction in which a single acid compound serves both as an oxidising and as a reducing agent.

### **Acid dye, Acid dyestuff**

*Aatcc.org*

an anionic dye having substantivity for fibers which contain cationic groups usually in acidic or neutral aqueous dyebaths.

*Apparelsearch*

Water soluble anionic dyes that are applied to fibres such as silk, wool, nylon and modified acrylic fibres from neutral to acid dyebaths. Attachment to the fibre is attributed, at least partly, to salt formation between anionic groups in the dyes and cationic groups in the fibre. Acid dyes are not substantive to cellulosic fibres.

*Ca-bc.com/zip\_internacional/usedmach/education/*

A class of dyes used on wool, other animal fibers, and some manufactured fibers. Acid dyes are seldom used on cotton or linen since this process requires a mordant. Acid dyes are widely used on nylon when high washfastness is required. In some cases, even higher washfastness can be obtained by aftertreatment with fixatives.

*fibre2fashion*

an anionic dye characterized by substantivity for protein and polyamide fibres and usually applied from an acidic or neutral dye bath.

*Iultcs.org*

Water-soluble anionic dyestuff that is applied to nitrogenous fibres such as leather, wool, silk, nylon and modified acrylic fibres from acid or neutral baths.

*New world encyclopedia*

An acid dye is a type of dye that is applied from an acidic solution. In the home or art studio, the acid used in the dye bath is often vinegar (acetic acid) or citric acid. In textiles, acid dyes are effective on protein fibers—particularly animal hair fibers such as wool, alpaca, and mohair. They are also useful for dyeing silk. They are effective on nylon but not on most other synthetic fibers. Acid dyes are generally divided into three classes, based on fastness requirements, level dyeing properties, and economy. The classes overlap and generally depend on the type of fiber to be colored and the process used.

*p2pays.org/ref/13/12194.pdf*

Acid dyes are typically applied in acidic conditions, but the pH range used varies depending on the type of acid dye. The greater the affinity of the dyestuff for the fibre, the more the ionic bonds must be repressed by applying the dye at higher pH.

*Teampuma*

An anionic dye characterised by its substantivity (q.v.) for protein fibres and polyamide fibres and usually applied from an acidic or neutral dye bath.

*Techexchange*

Commercial dyes used for nylon, wool, silk, acrylic, polypropylene and blends of these fibers, so called because they are applied to fabric in organic or inorganic acid dyeing solutions.

*Weavers.org.uk*

A chemical anionic dye used in dyeing protein fibres, including wool and silk, also polyamide fibres. This range of dyes is often referred to as brilliant dyes, are wet-fast and produce good results in fastness and brightness of colour. They can normally be applied in an acidic or neutral state. This large group of acid dyes, with a limited range of colours, is subdivided into four main classes: (a) acid levelling or equalizing dyes, (b) acid milling dyes, (c) half milling or perspiration fast dyes and (d) super-milling or fast dyes

*wickedwool.com/about/rug-hooking-terms*

This type of commercial dye is ideally suited for achieving washfast color in wool. Simply put, acid dye is specially formulated to lower the pH of dye bath, allowing color to penetrate the fiber of the wool. Process must be completed with an acidic mordant such as vinegar or citric acid. Manufacturers include Cushing, Pro-Chem, Jacquard, Majic Carpet and Aljo. Please follow their instructions for use.

*Wikipedia*

Acid dye is a member of a class of dye that is applied from an acidic solution. In the home or art studio, the acid used in the dye bath is often vinegar (acetic acid) or citric acid. The uptake rate of the dye is controlled with the use of sodium chloride. In textiles, acid dyes are effective on protein fibers, i.e. animal hair fibers like wool, alpaca and mohair. They are also effective on silk. They are effective in dyeing the synthetic fiber nylon but of minimal interest in dyeing any other synthetic fibers. Acid dyes are generally divided into three classes which depend on fastness requirements, level dyeing properties and economy. The classes overlap and generally depend on type of fiber to be coloured and also the process used. Acid dyes are thought to fix to fibers by hydrogen bonding, Van der Waals forces and ionic bonding. They are normally sold as the Sodium salt therefore they are in solution anionic. Animal protein fibers and synthetic Nylon fibers contain many cationic sites therefore there is an attraction of anionic dye molecule to a cationic site on the fiber. The strength (fastness) of this bond is related to the desire/ chemistry of the dye to remain dissolved in water over fixation to the fiber.

## **Acid dyeable nylon**

*antron capet and fibres*

Nylon polymer that has been modified chemically to make the fiber receive acid dyes. Acid dyeable yarns are available in different dye levels (light, medium and deep).

*Staticworx*

A modified nylon polymer able to receive acid dyes. Acid dyeable yarns are available in light, medium and deep dye levels.

### **Acid-dyeable variants**

*Ca-bc.com/zip\_internacional/usedmach/education/*

Polymers modified chemically to make them receptive to acid dyes.

### **Acid esterification**

*Biofuelcanada.ca*

A common approach for removing free fatty acids from the feedstock is via acid catalyzed esterification in the presence of methanol. This converts the free fatty acids to methyl esters (e.g., biodiesel). Acid esterification equipment requires the use of stainless steel equipment due to the corrosive nature of the process.

### **Acid index**

*oldnc.3dn.ru/Docs/Harper.C.A.Plastics\_Materials\_and\_Proc-s.pdf*

Acid index is a value used to characterize the acidity of the products of combustion of polymeric materials. Acid index values are used as an aid in estimating respiratory and corrosion hazards presented by burning plastics and elastomers. Acid index is defined as the number of milliequivalents of acid (pH<sub>4</sub>) evolved per cubic centimeter of the polymeric material when burned under standard conditions in pure oxygen. Examples of acid index values are: Polyethylene approximately 0, Polyvinyl chloride 22, Acrylonitrile butadiene styrene with flame retardant 3, Polyphenylene sulfide 22.

### **Acid milling dyes**

**Kisela bojila za valjanje**

*HAND BOOK ON GLOSSARY OF TEXTILE TERMS, BUREAU OF INDIAN STANDARDS NEW DELHI 110 002,*

*UDC 001.4/677 (021) ISBN 81-7061-009-5*

Acid dyes having high fastness to wet processes on wool (particularly to milling) and normally applied to protein fibres from weak acid or 'neutral dyebaths.

### **Acid mordant dyes**

*Complete technology book on textile, spinning, weaving, finishing and printing, by Niir Bord*

These dyestuffs have very much similar properties to mordant dyes, but are applicable only to wool. They are of increasing importance and include the acid-alizarin and acid-anthracene dyes, the cloth reds etc. They are applied in an acid bath and subsequently treated with a metallic mordant.

### **Acid number**

**Kiselinski broj**

*Glossary of Rubber and Rubber-like Materials, ASTM publication, Philadelphia 1956*

An index figure designating a measure of the free fatty acids in animal and vegetable fats. It is the number of milligrams of potassium hydroxide necessary to neutralise the free fatty acids in 1 g of fat.

*REČNIK TRIBOLOŠKIH TERMINA, B. Ivković, Kragujevac 2012.*

**Količina baze izražena u miligramima kalijum hidroksida potrebna da se neutralizuje kiselinski sadržaj u jednom gramu uzorka.**

## **Acid rain**

### **Kisela kiša**

*građevinarstvo \_ Struna \_ Hrvatsko strukovno nazivlje.html*

**Oborina kod koje je pH-vrijednost smanjena. Kisele kiše zagađene su sumporovim dioksidom, dušikovim oksidima i drugim kemijskim spojevima.**

## **Acid recovery**

*Ca-bc.com/zip\_internacional/usedmach/education/*

A reclamation process in chemical processing in which acid is extracted from a raw material, by-product, or waste product. In the manufacture of cellulose acetate, acetic acid is a major by-product. Acid recovery consists of combining all wash water containing appreciable acetic acid and concentrating it to obtain glacial acetic acid.

## **Acid refined tall oil**

*Encyclopedic Dictionary of Polymers, Volume 1 edited by Jan W. Gooch*

Product obtained by treating crude tall oil in solvent solution with sulfuric acid under controlled conditions to remove dark color bodies and odoriferous materials. Removal of the solvent yields a product with lighter color and higher viscosity than crude tall oil with approximately the same fatty acid to rosin ratio.

## **Acid resistance**

*Ca-bc.com/zip\_internacional/usedmach/education/*

The property of withstanding contact or treatment with any acids normally encountered in use. The type of acid should be stated (i.e., organic or inorganic).

*composite.about.com/library/glossary/a/bldef-a96.htm*

Ability of materials to resist attack by acids. Most plastics have a high degree of acid resistance.

*Whittington's Dictionary of Plastics, by James W. Carley*

The ability of a plastic to withstand attacks by acids, specifically strong mineral acids. Most plastics have excellent acid resistance.

## **Acid scavenger**

*ampacet.com/EN/global/glossary.html*

A group of additives, mostly basic metallic oxides and salts, which have high affinity to acidic residues, and neutralize them. They are used whenever an acidic condition can be harmful.

*Borouge Polymer dictionary*

Neutralise acidic residues to protect processing equipment from corrosion.

*freshpatents.com/-dt20070712ptan20070161778.php*

An "acid scavenger" is a compound or substance which acts to neutralize, adsorb and/or buffer acids, e.g., a base or alkaline compound. Acid scavengers act to reduce the amount or concentration of protons or protonated water, i.e., H<sup>sup.+</sup> or H<sub>3</sub>O<sup>sup.+</sup>. In the context of the present invention, an acid scavenger acts to neutralize, diminish, or buffer acid produced by a photoacid generator. Preferably, an acid scavenger exhibits little or no stratification within a film over time or following exposure to heat.

*pcimag.com/Articles/Feature\_Article/BNP\_GUID\_9-5-2006\_A\_1000000000000597851*

Acid scavengers remove the small amounts of acid that are formed during the lifetime of a coating or ink. For example, when vinyl copolymers are aged small amounts of hydrochloric acid are formed as they age. An acid scavenger reacts with the acid, which removes it from the system so it cannot cause harm to the coating, substrate or abutting objects. Compounds

such as cycloaliphatic epoxides and soybean oil epoxide, which readily react with strong acids, are examples of acid scavengers.

[specialchem4polymers.com/resources/glossary/index.aspx?id=A](http://specialchem4polymers.com/resources/glossary/index.aspx?id=A)

Additive having the ability to neutralize acidic species from a formulation. It is mainly used to prevent equipment corrosion and to improve the stability of the material. Families of acid scavenger are : Metallic Stearates, Hydrotalcite, Hydrocalumite or Zinc Oxide.

### **Acidic oxide**

*Dictionary of Ceramic Science and Engineering, By Ian McColm*

Any oxide which will display acidic properties, such as SiO<sub>2</sub>, TiO<sub>2</sub>, ZrO<sub>2</sub>, SnO<sub>2</sub>, CeO<sub>2</sub>, GeO<sub>2</sub>, PrO<sub>2</sub>, Sb<sub>2</sub>O<sub>3</sub>, As<sub>2</sub>O<sub>3</sub>, B<sub>2</sub>O<sub>3</sub>, and P<sub>2</sub>O<sub>5</sub>.

### **Acidic titrant**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

An acid solution of known concentration used as a standard solution for titration to determine the basicity of a solution of unknown concentration.

### **Acid value, Acid number**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

A measure of a free acid content of a substance, such as an oil, resin, or wax, as determined by the number of milligrams of potassium hydroxide, KOH, required to neutralise one gram of the substance.

[composite.about.com/library/glossary/a/bldef-a94.htm](http://composite.about.com/library/glossary/a/bldef-a94.htm)

The measure of free acid content of a substance. It is expressed as the number of milligrams of KOH neutralized by the free acid present in one gram of the substance. This value is sometimes used in connection with the end-group method of determining the molecular weight of polyesters. It is also used in evaluating plasticizers, in which acid values should be as low as possible.

[edge-sweets.com/polyurethane-equipment/glossary/A-glossary.html](http://edge-sweets.com/polyurethane-equipment/glossary/A-glossary.html)

The value given to trace residues of acids in the finished polyol. It is of interest because acids can react directly with NCO groups (TDI) and thus must be allowed for in formulation calculations (see index). The normal value for most polyether polyols is less than .05 parts per hundred. Most polyester polyols normally have an acid number between 0.1 and 0.5.

[emulsifiers.org/ViewDocument.asp?ItemId=26&Title=Glossary+of+words](http://emulsifiers.org/ViewDocument.asp?ItemId=26&Title=Glossary+of+words)

A measure of the content of free fatty acids, for example in fat. Gives an indication of efficiency during refining, when the free fatty acids are removed and the acid value becomes very low. It also indicates the degree of deterioration during storage, making it possible to evaluate the quality of frying oils (the lower the acid value, the better the quality).

[huntsman.com/pu/Media/PU\\_Brochures\\_cwp\\_glossary.pdf](http://huntsman.com/pu/Media/PU_Brochures_cwp_glossary.pdf)

A measure of the residual acidity of a substance, e.g. a polyester. Measured in mgKOH/g needed to neutralize the acidity.

[machinerylubrication.com/Glossary](http://machinerylubrication.com/Glossary)

The quantity of base, expressed in milligrams of potassium hydroxide, that is required to neutralize the acidic constituents in 1 g of sample.

*Polymer science dictionary, by Mark. s.m. Alger, Google books*

A measure of the concentration of the carboxyl end groups in a polymer, often used in characterisation of polyesters. Defined as the weight in milligrams of potassium hydroxide required to neutralise 1g of the polymer



## **Acid wash, Marble wash, Moon wash, Snow wash**

*Alrashidmall*

A very successful wash and a controversial issue. World famous, acid wash was first commercialized by the Italian firm Rifle, at Inter-Jeans in 1986. It turned into a boom and proliferated in a number of variations, but the process was actually patented by the Italian Candida Laundry Company the same year. It consists of soaking pumice stones with chlorine and using their abrasive power to bleach jeans into sharp contrasts. Also known as moon, fog, marble, ice and frosted.

*Dan river*

A process that alters the color of indigo denim fabrics by treating them with chemicals.

*Indigo traveler.com*

The iconic wash of the 80s. Acid wash was patented by the Italian Candida Laundry in 1986. The process is achieved by soaking pumice stones in chlorine bleach and then dry tumbling them with jeans before washing. This creates very irregular, hi contrast splotches over the entire surface of the garment

*oki-ni.com/page/denimglossary*

This finish gives indigo jeans sharp contrasts. The process is achieved by soaking pumice stones in chlorine and letting these stones create contrast. The process was created in Italy and patented in 1986.

*scribd.com/doc/21333297/denim-washing*

It is done by tumbling the garments with pumice stones presoaked in a solution of sodium hypochlorite or potassium permanganate for localised bleaching, resulting in non-uniform sharp blue-white contrasts. In this wash, the colour contrast of the denim fabric can be enhanced by optical brightening. The advantage of this process is that it saves water, as addition of water is not required. Acid washed, indigo-dyed denim has a tendency of yellowing after wet processing. The major cause is residual manganese, due to incomplete neutralisation, washing or rinsing.

## **Acidic**

*Ca-bc.com/zip\_internacional/usedmach/education/*

A term describing a material having a pH of less than 7.0 in water. A term describing a material having a pH of less than 7.0 in water.

*Wikipedia*

An acid (often represented by the generic formula HA [H+A<sup>-</sup>]) is traditionally considered any chemical compound that, when dissolved in water, gives a solution with a hydrogen ion activity greater than in pure water, i.e. a pH less than 7.0. That approximates the modern definition of Johannes Nicolaus Brønsted and Martin Lowry, who independently defined an acid as a compound which donates a hydrogen ion (H<sup>+</sup>) to another compound (called a base). Common examples include acetic acid (in vinegar) and sulfuric acid (used in car batteries). Acid/base systems are different from redox reactions in that there is no change in oxidation state.

## **Acidic solution**

*Encyclopedic Dictionary of Polymers, by Jan W. Gooch*

An aqueous solution in which the concentration of hydrogen (hydronium) ions exceeds that of hydroxide ions.

*geocities.com/huda2000cie/MOCKUP.ppt*

We define an acidic Solution as one where the [H<sup>+</sup>] in the solution is greater than the [H<sup>+</sup>] in pure water.

*physicalgeography.net/physgeoglos/a.html*

Any water solution that is acidic (pH less than 7) or has more hydrogen ions (H<sup>+</sup>) than hydroxide ions (OH<sup>-</sup>).

*schools.look4.net.nz/science/chemistry/index/index\_html*

A solution in which the hydrogen ion activity is higher than that of the hydroxide ion, when the solvent is water.

### **Acidification**

*caemi glossary*

Decrease in the pH of soil and water due to precipitation containing dissolved ammonium compounds, sulphur and nitrogen oxides; an indirect cause of forest damage.

*dantes.info/Projectinformation/Glossary/Glossary.html*

Acidification is caused by acid depositions of three main pollutants: sulfur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), and ammonia (NH<sub>3</sub>). Acid depositions have negative impacts on water, forests, and soil as well as causing damage to buildings and monuments. The main sources of emissions of acidifying substances are fossil fuel combustion used for energy production and transport.

*Environmental Engineering Dictionary, edited by C. C. Lee*

Addition of an acid solution to a solution to increase its hydrogen ions until the solution becomes acidic (pH < 7).

*eusoils.jrc.ec.europa.eu/ESDB\_Archive/glossary/Soil\_Terms.html*

Process whereby soil becomes acid (pH < 7) because acid parent material is present or in regions with high rainfall, where soil leaching occurs. Acidification can be accelerated by human activities (use of fertilisers, deposition of industrial and vehicular pollutants).

*/museum.gov.ns.ca/mnh/nature/nhns2/glossary.htm*

The lowering of pH in soils or water. Commonly associated with changes caused by external processes such as acid precipitation and acidic runoff.

### **Acidimeter**

#### **Acidometer**

*Environmental Engineering Dictionary, edited by C. C. Lee*

*The Fairchild books: Dictionary of textiles*

A volumetric analysis meter that is used to measure the amount of acid in a sample.

### **Acidimetry**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

An analytical method to determine the amount of acid in a given sample by titration against a standard solution of a base.

### **Acidity**

*Dyplastproducts.com*

The quality of a material to be acidic (pH under 7) when exposed to moisture or water producing a red/pink reaction to litmus paper. Insulation that creates an acidic environment when exposed to water can contribute to corrosion of the system. Dyplast's polyisocyanurate and expanded polystyrene products do not react with water, creating neither a basic nor acidic environment; therefore they do not contribute to corrosion.

*Encyclopedic Dictionary of Polymers, by Jan W. Gooch*

(1) Measure of the free acid present. (2) In oils, acidity denotes the presence of acid-type constituents, whose concentrations are usually defined in terms of neutralisation number, called acid number.

*Environmental Engineering Dictionary, edited by C. C. Lee*

(1) The capacity of a wastewater for neutralising a base. It is normally associated with the presence of carbon dioxide, mineral and organic acids, and salts of strong acids and weak bases. It is reported as equivalent of  $\text{CaCO}_3$ , because many times it is not known just what acids are present. (2) The quantitative capacity of aqueous solutions to react with hydroxyl ions. It is measured by titration with a standard solution of a base to a specific end point. Usually expressed in milligrams per liter of calcium carbonate; that is, the amount of calcium carbonate that would be required to exactly neutralise the sample.

[pneumatic-source.com/resources/glossary/a.shtml](http://pneumatic-source.com/resources/glossary/a.shtml)

quality, state or degree of being acid. In oils, acidity denotes the presence of acid-type constituents whose concentration is usually defined in terms of neutralization number.

### **Acme**

[resil.com/c.htm](http://resil.com/c.htm)

A variety of raw cotton that has been grown in Mississippi. The staple is fairly long and but of inferior quality.

### **Acorn nut, Domed cap nut**

#### **Visoka slijepa matica**

[struna\\_knj\\_14\\_strelementi\\_04\(1381\).pdf – Foxit Reader](#)

**Šesterokutna matica bez provrta s navojem i polukuglastim završetkom.**

### **Acoustic absorption**

[Answers.com](#)

A process in which sound energy is reduced when sound waves pass through a medium or strike a surface.

[carpetbuyershandbook.com/carpet-glossary/glossary-a/](http://carpetbuyershandbook.com/carpet-glossary/glossary-a/)

The ability of a floorcovering to reduce (absorb) impact noise and its transmission to other surfaces (e.g., subflooring).

### **Acoustic holography**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

A nondestructive technique for evaluating flaws in opaque materials, using phase and amplitude relationships between an ultrasonic source probe and its defect-generating reflection.

### **Acoustic microscopy**

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

A technique used to study features beneath the surface of light-opaque materials. Sound waves, generated by piezoelectric transducer, are focused by a sapphire crystal, through water, onto a reflecting object. The reflected sound wave is used to electronically build up a picture of the structure on a video screen.

### **Acoustic microscope**

[Accessscience](#)

An instrument that utilizes focused acoustic waves to produce images of surface and subsurface features in materials, and to measure elastic properties on a microscopic scale. It has been used to image and measure local elastic properties in metals, ceramics, semiconductor integrated circuits, polymeric materials, and biological materials including individual cells.

[Azom](#)

The acoustic microscope was developed as a tool for studying the internal microstructure of nontransparent solids. In acoustic microscopy, a sample is imaged by ultrasound waves, and the contrast in reflection furnishes a map of the spatial distribution of the mechanical properties.

*Ultrasonic-sciences*

The Scanning Acoustic Microscope (known as "SAM") is used to produce high resolution internal images of materials and components. USL acoustic microscopes operate in the "pulse echo" mode, in which short sound pulses are transmitted into the sample and the returning echoes are monitored and evaluated. By scanning the ultrasonic transducer over the sample, an acoustic image of the internal structure is formed. This can be done in as little as a few seconds.

*Wikipedia*

a device which uses focused sound to investigate, measure, or image an object (a process called Scanning Acoustic Tomography). It is commonly used in failure analysis and non-destructive evaluation. It also has applications in biological and medical research. The semiconductor industry has found the Scanning Acoustic Microscope useful in detecting voids, cracks, and delaminations within microelectronic packages.

### **Acoustic resistance**

#### **Akustički otpor**

*Naftni rječnik – Perić*

U akustici – realna (suprotno od imaginarna) komponenta akustičke impedancije (v. acoustic impedance). Obično se mjeri u akustičkim omima. Sinonim: acoustical resistance; v. acoustic reactance.

### **Acoustic resonator**

#### **Akustički rezonator**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Omeđena šupljina koja je ispunjena zrakom ili kojim drugim plinom, u njoj nastaju stojni valovi zvuka.**

### **Acoustic spectroscopy**

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

Measurement of attenuation and velocity of ultrasonic pulses as they pass through concentrated suspensions and slurries. Measurements are made over a large range of frequencies, to generate spectra from which particle size distributions in the range between 5nm to 100µm can be measured. The rate of change of signal level as an acoustic pulse travels a distance in a colloidal suspension over a series of distances corresponds to the attenuation due to losses in the colloid. The attenuation is normalised by frequency and the particle size distribution is obtained by computed an expected attenuation against that observed.

### **Acoustic tile**

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

A thin, decorative tile of plaster, ceramic, fibre or other material, having sound-absorbing properties, which is used as a covering for walls, ceilings and other surfaces.

### **Acoustic wave**

*vidi*

### **Sound wave**

### **Acoustical analysis**

#### **Akustička analiza**

*Environmental Engineering Dictionary, edited by C. C. Lee*

A review of a space to determine the level of reverberation or reflected sound in the space (in seconds), as influenced by the material used to construct the space. Also, a study of the amount of acoustical absorption required to reduce reverberation and noise.

## **Acoustics**

### **Akustika**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Grana fizike koja se bavi istraživanjem zvuka i zvučnih valova.**

## **Acousto-optical modulator**

### **Akustooptički modulator**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Uređaj koji zvučnim valovima varira amplitudu i fazu svjetlosnoga snopa.**

## **Acquisition**

*consultwebs.com/legal\_glossaries/business\_law/business\_law\_glossary.html*

The purchase of one corporation by another, through either the purchase of its shares, or the purchase of its assets.

*investorglossary.com/acquisition.htm*

In a broad sense, an acquisition takes place when one corporation takes over controlling interest of another. An acquisition invariably results in a merger of two companies. When an acquisition occurs, the company that is being acquired is dubbed a target company. Although the term acquisition usually refers to a larger company consuming a smaller one, the outcome of an acquisition is always a formation of a single business entity from assets and liabilities of two separate units. An acquisition can come in a form of a friendly merger between two corporations. It may also come as a hostile takeover, in which the target company attempts to block the acquisition. By and large, acquisitions are sought to consolidate market influence within given industries, as well as to advance profit opportunities. In effect, a successful acquisition is determined by whether or not it has augmented the value of the acquiring company.

*marketconnect.bbandt.com/bbandt/invest\_glosry\_AAc.htm*

The act of one corporation acquiring a controlling interest in another corporation. In an "unfriendly" takeover, the buying corporation may offer incentives to stockholders such as offering a price well above the current market value.

*Wikipedia.org*

An acquisition, also known as a takeover or a buyout, is the buying of one company (the 'target') by another. An acquisition may be friendly or hostile. In the former case, the companies cooperate in negotiations; in the latter case, the takeover target is unwilling to be bought or the target's board has no prior knowledge of the offer. Acquisition usually refers to a purchase of a smaller firm by a larger one. Sometimes, however, a smaller firm will acquire management control of a larger or longer established company and keep its name for the combined entity. This is known as a reverse takeover. Another type of acquisition is reverse merger, a deal that enables a private company to get publicly listed in a short time period. A reverse merger occurs when a private company that has strong prospects and is eager to raise financing buys a publicly listed shell company, usually one with no business and limited assets. Achieving acquisition success has proven to be very difficult, while various studies have shown that 50% of acquisitions were unsuccessful.[citation needed] The acquisition process is very complex, with many dimensions influencing its outcome

## **Acquisition layer**

*Absorbent technology, By P. K. Chatterjee, B. S. Gupta, Google books*

With the development of thin and ultrathin absorbent structures there has been a need of the materials that would facilitate the penetration of fluids into the densified absorbent core. Absorbent core density started to increase to a level where additional mechanism of quick fluid penetration became critical. Without a fluid acquisition system, separate or integral to the core, the absorbent core structure could not function at its desired level. The nonwoven acquisition layer is generally composed of long-staple fibres, providing efficient wicking channels and a combination of wettable and non-wettable fibres. There could be many different construction of layers. However, if one acquisition layer works well, two would work better. This led to the construction of multi-layer cores, multiplying the absorbing ability of such products.

[.freepatentsonline.com/5728081.html](http://freepatentsonline.com/5728081.html)

An absorbent article has an absorbent core and a liquid permeable top sheet made of polyolefin material. An acquisition layer is provided between the top sheet and the core. The acquisition layer is a nonwoven fabric made from polyolefin fibers bonded by a cured resin. The acquisition layer has a larger pore size than the top sheet and is treated with a surface active agent to render it hydrophilic.

*Textilesintelligence*

an absorbent layer close to the coverstock in a nonwoven hygiene product (such as a diaper) through which fluid enters. Typically, the fluid is then transmitted to a distribution layer.

### **Acrolein, Acrylic aldehyde**

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

A liquid derived from the oxidation of allyl alcohol or propylene, used as an intermediate in the production of polyester resins and polyurethanes.

### **Acromion**

*Medterms*

The projection of the scapula (the shoulder blade) that forms the point of the shoulder. The acromion is part of the scapula. It protrudes laterally (away from the midline) and is triangular in shape. The top of the shoulder is acromial. The word "acromion" comes from the Greek "akron", peak + "omos", shoulder = the peak of the shoulder.

[resil.com/c.htm](http://resil.com/c.htm)

In anatomy, that part of the shoulder blade located at the end of the spine, which articulates with the collarbone.

### **Acrylamide**

**Akrilamid**

*Technical brief 2011, Glossary of Polymer terms*

A polymer formed from monomers based on acrylic acid amides or methacrylic acid amides, e.g., polyacrylamide.

### **Acrylate, Acrylic, Acrylic polymer, Polyacrylic**

**Akrilat, Akrilatni polimer, Akrilni polimer, Poliakrilat**

[dow.com/productsafety/overview/glossary.htm#termsF](http://dow.com/productsafety/overview/glossary.htm#termsF)

1) Any of several monomers used for the manufacture of thermosetting acrylic surface coating resins, e.g., 2-hydroxyethyl acrylate (HEA) and hydroxypropyl acrylate (HPA); (2) Polymer of acrylic acid or its esters, used in surface coatings, emulsion paints, paper and leather finishes, etc.

*Encyclopedic Dictionary of Polymers, by Jan W. Gooch*

Ester formed from acrylic acid. The term also applies to metallic salts of this acid.

*Glosar razrednih imena polimera na osnovi kemijske strukture i molekularne arhitekture, Kem. Ind. 61 (3) 145–176 (2012) V. JARM:*

Polimer dobiven iz akrilne kiseline ili derivata akrilne kiseline. Napomena 1: Primjeri derivata akrilne kiseline jesu esteri, amidi, nitrili, kloridi i aldehidi. Napomena 2: Akrilni polimer dobiven od metakrilne kiseline i srodnih monomera naziva se metakrilni polimer ili polimetakrilat ili metakrilatni polimer. Metakrilni polimeri su podrazred akrilnih polimera. Napomena 3: Molekula pravilnog akrilnog homopolimera može se prikazati ponavljanom konstitucijskom jedinicom opće formule:  $-\text{CR}(\text{X})-\text{CH}_2-$ , gdje je  $\text{RCOOH}$ ,  $\text{COOR}_1$ ,  $\text{CN}$  ili  $\text{CONR}_1\text{R}_2$ , a X je H, alkil, aril, heteroaril ili CN.

*Technical brief 2011, Glossary of Polymer terms*

A polymer formed from monomers based on acrylic acid and its esters or methacrylic acid and its esters, e.g., Poly(acrylic acid), poly(methyl methacrylate-co-methacrylic acid).

[visagedelayla.com/glossary/index.php](http://visagedelayla.com/glossary/index.php)

Salts or esters of acrylic acid used as thickening agents and as constituents of nail polishes.

Strong irritant.

*Wikipedia.org*

Acrylates are the salts and esters of acrylic acid. They are also known as propenoates (since acrylic acid is also known as 2-propenoic acid). Acrylates contain vinyl groups, that is, two carbon atoms double bonded to each other, directly attached to the carbonyl carbon. Acrylates and methacrylates (the salts and esters of methacrylic acid) are common monomers in polymer plastics, forming the acrylate polymers. Acrylates easily form polymers because the double bonds are very reactive. Acrylate has been suggested to be used by marine phytoplankton as a poisonous defense against predators such as protozoa. When attacked, DMSP lyase breaks down DMSP into DMS (g) and acrylate.

#### **Acrylate resin**

##### **Akrilna smola**

*Glossary of Rubber and Rubber-like Materials, ASTM publication, Philadelphia 1956*

A polymerisation product of certain esters of acrylic acid and methacrylic acid, such as methyl and ethyl acrylate. It possesses great optical clarity, a high degree of light transmission, and is the nearest approach to an organic glass.

#### **Acrylated rubber**

[.leighspaints.co.uk/Glossary.aspx](http://leighspaints.co.uk/Glossary.aspx)

Resin binder produced from the copolymerisation of styrene and acrylic monomers.

#### **Acrylic, Acrylic fibre**

*Amefid Glossary of textile terms*

A manufactured fiber in which the fiber forming substance is any long chain of synthetic polymer composed of at least 85% by weight of acrylonitrile units. The fiber is made in staple form only. Common trade names include Acrilan, Creslan, and Zefran. Acrylic fabrics are lightweight, soft and resilient. Some acrylic fabrics, particularly knits, approximate the hand of fine wool. Because of the composition and cross section of the fiber, fabrics made from acrylic have a high bulk to weight ratio. This is further enhanced with the so-called "high Bulk" spun yarns. End uses include floor coverings, blankets, and apparel such as tailored clothing, dresses and sweaters. Trade names - Acrilan, Dralon, Courtele, Orlon.

*Bisfa.org*

Fibre composed of linear macromolecules having in the chain at least 85% by mass of acrylonitrile repeating units.

*Boca fabric definitions*

A manufactured fiber in which the fiber-forming substance is any long chain synthetic polymer. (Meaning to the consumer: weather-resistant)

[Ca-bc.com/zip\\_internacional/usedmach/education/](http://Ca-bc.com/zip_internacional/usedmach/education/)

A manufactured fiber in which the fiber-forming substance is any long chain synthetic polymer composed of at least 85% by weight of acrylonitrile units [-CH<sub>2</sub>-CH(CN)-] (FTC definition). Acrylic fibers are produced by two basic methods of spinning (extrusion), dry and wet. In the dry spinning method, material to be spun is dissolved in a solvent. After extrusion through the spinneret, the solvent is evaporated, producing continuous filaments which later may be cut into staple, if desired. In wet spinning, the spinning solution is extruded into a liquid coagulating bath to form filaments, which are drawn, dried, and processed.

**CHARACTERISTICS:** Because acrylic fibers are thermoplastic, fabrics may be heat-set for wrinkle resistance and to provide permanency to pleats. Acrylic fabrics have low moisture absorbency and dry relatively quickly. In general, acrylic fibers are resistant to the degrading effects of ultraviolet rays in sunlight and to a wide range of chemicals and fumes. They provide warmth in fabrics that are lightweight, soft, and resilient. Acrylic fibers have relatively poor flame resistance compared with other fibers. Some acrylic fabrics, particularly knit types, approximate the hand of fine wool. Because of the composition and cross section of the fiber, fabrics made therefrom have a high bulk to weight ratio. This is further enhanced with the so-called "high bulk" spun yarns. **END USES:** End uses of acrylic fibers include floor coverings, blankets, and apparel uses such as suitings, pile fabrics, coats, collars, linings, dresses, and shirts.

*chezchazz fibres*

A manufactured fiber derived from polyacrylonitrile, acrylic has a wool-like feel but lacks wool's insulating properties. It is colorfast and resists stains and fading, but is harder to clean than some other fibers and can pill. It is most often used blended with natural fibers to add durability. Acrylic is machine washable and dryable, and resists chlorine degradation.

*Crystals fabric dictionary*

Acrylic is a synthetic fiber with a soft, wool-like feel. Acrylic fabrics tend to be more resistant to sunlight and wrinkling. Many dress and upholstery fabrics contain acrylic fibers. In fact, most of our felt fabrics are 100% acrylic. Acrylic is machine washable and retains color very well.

*fibres2fashion*

a term used to describe fibres composed of synthetic linear macromolecules having in the chain at least 85% (by mass) of recurring cyanoethene (acrylonitrile) groups.

*Glossary of Paint and Coatings Terminology, M. Pavlič, Ljubljana 2002.*

A resin resulting from the polymerisation of derivatives of acrylic acids, including esters of acrylic acids, methacrylic acid, acrylonitrile and their copolymers. Acrylics are also used in powder coatings in their thermoplastic form.

*bandofabrics.com/proddetail-dictionary.asp*

Acrylic is a synthetic fiber with a soft, wool-like feel. Acrylic fabrics tend to be more resistant to sunlight and wrinkling. Many dress and upholstery fabrics contain acrylic fibers. In fact, most of our felt fabrics are 100% acrylic. Felt is the most common form of acrylic fabric.

Acrylic is machine washable and retains color very well.

*newcitycleaners*

Acrylic is typically used as a substitute for wool and is a generic name for a synthetic fiber derived from polyacrylonitrile. The first commercial production of the wool-like acrylic fiber in the United States was in 1950 by E. I. du Pont de Nemours & Company, Inc.

Acrylic garments may be dry cleaned.

*Polymer science dictionary, by Mark S.M. Alger*

Generic name for a fibre containing at least 85% by weight of acrylonitrile repeating units in its polymer chains. Frequently small amounts of comonomer are also incorporated to improve certain properties, notably dyeability. If more than 25% of comonomer is present, then the fibre is described as modacrylic. Examples are Acrilan, Courtelle, Cresla, Orlon and Zefran.

*Teampuma*



the generic name for fibres made from a synthetic linear polymer that consists of at least 85% (m/m) of acrylonitrile units or acrylonitrile copolymers. (See also polyacrylonitrile fibre).

*Technical centre*

A manufactured fiber derived from polyacrylonitrile. Its major properties include a soft, wool-like hand, machine washable and dryable, excellent color retention. Solution-dyed versions have excellent resistance to sunlight and chlorine degradation.

*TheSewingDictionary.com - Your Sewing Dictionary and Glossary On the Web*

Fabric made from petroleum products. Colorfast, washable and able to be dried in the machine, wrinkle resistant, with a wool-like texture, though does not take heat well. Don't iron this wonder fabric. Will generally wick (draw moisture from the body).

## **Acrylic acid, Propenoic acid**

### **Akrilna kiselina, Propionska kiselina**

*Polymer science dictionary, by Mark S.M.Alger*

$\text{CH}_2=\text{CHCOOH}$ . Boiling point  $142^\circ\text{C}$ , melting point  $13^\circ\text{C}$ . Produced either by dehydration followed by hydrolysis of ethylene cyanohydrin, itself obtained by reaction of ethylene oxide with hydrogen cyanide, by reaction of acetylene with carbon monoxide, or by aerial oxidation of propylene at  $400 - 500^\circ\text{C}$ . Useful as monomer for polyacrylic acid and as a comonomer in thermosetting acrylic coatings.

*Polymer Technology Dictionary, by Tony Whelan*

Also known as propenoic acid. A material with the formula  $\text{CH}_2=\text{CHCOOH}$ . Used in the production of polyacrylic acid and thermosetting acrylic coatings. See – Methyl acrylate.

*Whittington's Dictionary of Plastics, by James W. Carley*

A colourless, unsaturated acid that polymerises readily. The homopolymer is used as a thickener and textile sizing agent and, crosslinked, as a cation-exchange resin. Acrylic acid esters are widely used as monomers for acrylic resins.

## **Acrylic adhesive**

*asean.fasson.com/Asean/ASEANGLOS.NSF/GlossaryATerms*

Pressure sensitive adhesives base on acrylic polymers. Can be coated as a solvent or emulsion system. Noted for excellent stability in outdoor exposure.

*bindagraphics.com/printing%20industry%20glossary/A.html*

These adhesives usually have high temperature resistance, high-grade UV resistance and great permanent bond strength.

*ellsworth.com/product\_definitions.html*

A structural adhesive capable of bonding a broad range of substrates including most types of plastics and metals both minimally prepared and unprepared. Two-part catalyst cure or one part UV or heat cure available. Good to excellent flexibility and environmental resistance. Fast setting times.

*intota.com/experts.asp?strSearchType=all&strQuery=acrylic+adhesive+material*

An adhesive, of which more than one kind exists, that is a solution of rubber-base polymers in methacrylate monomers. Acrylic adhesives bond quickly at room temperature, and can adhere to oily surfaces, as well as to many types of materials, including copper, most plastics, glass, and wood.

*Materials handbook: an encyclopedia for managers, technical professionals, by George Stuart Brady, George S. Brady*

Solutions of rubber-based polymers in methacrylate monomers. They are two-component systems and have characteristics similar to those of epoxy and urethane adhesives. They bond

rapidly at room temperature, and adhesion is not greatly affected by oily or poorly prepared surfaces. Other advantages are low shrinkage during cure, high peel and shear strengths, excellent impact resistance and good elevated-temperature properties. They can be used to bond a great variety of materials, such as wood, glass, aluminium, brass, copper, steel, most plastics and dissimilar metals.

*tenacioustapes.com.au/glossary.php*

These are formed by the polymerization (a chemical process forming large molecule chains from small ones) of acrylic ester monomers, the basic building block. These adhesives tend to exhibit lower initial tack than rubber adhesives, but have higher cohesive strength, thermal stability, ageing characteristics, UV and solvent resistance.

*toolingu.com/definition-670110-41197-acrylic-adhesive.html*

A type of structural adhesive made from acrylic, a manufactured polymer. Acrylic adhesives set rapidly and are very strong due to heavy cross-linking.

### **Acrylic coated**

*fibre2fashion*

a fabric which has been coated, generally on the back, with acrylic resin to make it waterproof or dawnproof.

### **Acrylic ester**

*Whittington's Dictionary of Plastics, by James W. Carley*

An ester of acrylic or methacrylic acid or structural derivatives thereof. Polymers derived from this monomers range from soft, elastic, film-forming materials to hard plastics. They are readily polymerised as homopolymers or copolymers with many other monomers, contributing improved resistance to heat, light and weathering. Some members of the acrylic ester family, e.g. butylene dimethacrylate and trimethylolpropane trimethacrylate, function as reactive plasticisers in PVC and elastomers. They serve as plasticisers during processing, then polymerise while curing to impart hardness to the finished article. See Acrylic resin.

### **Acrylic fabric**

*housekeeping.about.com/od/fabricglossary/g/fabric\_acrylic.htm*

Acrylic is a synthetic or manufactured fiber that is both soft and lightweight. It dries easily and is machine washable. Acrylics are popular because of their ability to retain their shape and texture after washing and drying, however they can pill easily. Static cling also happens frequently with acrylics.

*infomat.com/guides/acrylic.html*

1 : A synthetic fabric made from acrylonitrile 2 : It is a durable fibre with a soft, woolly feel. It has an uneven surface, making it different from most manufactured fibres. It comes in a variety of colours, and can be dyed easily. It is resistant to sun and chemicals. 3 : Often used as a replacement for wool. trademark acrylic fibers: \* Biofresh™ anti-microbial fiber by Sterling Fibers \* Cresloft™ by Sterling Fibers \* Duraspun™ by Solutia \* MicroSupreme™ (warm) by Sterling fibers \* MicroSupreme™ (cold) by Sterling fibers \* Piltrol™, low pill fiber by Solutia \* Weatherbloc™ by Solutia

*resil.com/c.htm*

Soft, light, bulky with woolly handle. Absorbent, warm, resistant to mildew and moths. Easily washed and drycleanable. Fabrics have tendency to 'pill' after some wear and knitted acrylics easily lose their shape. Skirts may 'seat' and trousers may 'bag' at the knees. The sensitivity of acrylic materials to stretching when in warm moist condition demands careful washing temperature control and flat drying. Ironing of these fabrics is done carefully at a cool setting to avoid distortion and glazing.

### **Acrylic foam**

*Encyclopedic Dictionary of Polymers, Volume 1 edited by Jan W. Gooch*

A cellular polymer used for lining drapes and made by mixing emulsified acrylic acid with compressed air in the ratio of one part emulsion to four or five parts air, spreading the foam on a substrate, then drying it in an oven. The emulsion may contain fillers and pigments to provide opacity, and a foaming aid, such as ammonium stearate. When the coated fabric must have abrasion resistance for washing and cleaning, the acrylic foam can be crushed between rollers to partly collapse the cell structure.

### **Acrylic jersey**

*resil.com/c.htm*

Knitted fabric, soft, warm, absorbent, and even warmer if the back is brushed or fleeced. Usually in bright stripes as the right side is rather dull and unattractive if in plain colours. Used for leisure clothes, jogging suits, robes and dressing gowns. Not hardwearing; trousers may 'bag'.

### **Acrylic knit**

*resil.com/c.htm*

A wide variety of fabrics made from acrylic fibre, but often containing small percentages of other fibres. Linen and suede fibres are often added to acrylic to make the fabrics look better, and also to provide stability. Designs include fine and heavy ribs, lacy and crochet effects and open, often marled effect fabrics resembling hand-knits. Though soft and comfortable to wear; most tend to lose their shape. Trousers 'bag' and dresses 'seat', hence they are allowed to re-shape between wearings. Used for leisure clothes, sweaters, tops and sweater dresses.

### **Acrylic latex**

*Encyclopedic Dictionary of Polymers, Volume 1 edited by Jan W. Gooch*

Aqueous dispersion, thermoplastic or thermosetting, of polymers or copolymers of acrylic acid, methacrylic acid, esters of these acids, or acrylonitrile.

### **Acrylic resin, Acrylic plastic**

*Answers.com*

Any of numerous thermoplastic or thermosetting polymers or copolymers of acrylic acid, methacrylic acid, esters of these acids, or acrylonitrile, used to produce paints, synthetic rubbers, and lightweight plastics.

*Ca-bc.com/zip\_internacional/usedmach/education/*

A polymer of acrylonitrile, used in the production of manufactured fibers, as a fabric finish and as a size.

*etfinancial.com/coatingsgloss.htm*

A resin resulting from the polymerization of derivatives of acrylic acids, including esters of acrylic acid, methacrylic acid, acrylonitrile, and their copolymers. Acrylics are also used in powder coatings in their thermoplastic form.

*hmgpaint.com/help/glossary/*

A type of resin used in solvent borne and waterborne industrial and decorative coatings and inks. Often reacted with other resin types to achieve the right properties.

*Hrvatsko nazivlje polimerstva, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Plastika na osnovi akrilne kiseline ili njezinih derivata. Sastav akrilne plastike mogu činiti i kopolimeri s ostalim monomerima u kojima većinski maseni udio čine akrilati.**

*Materials handbook: an encyclopedia for managers, technical professionals, by George Stuart Brady, George S. Brady*

Stable and resistant to chemicals. They do not cloud or fade in light when used as laminating material in glass and are used as air-curing adhesives to seal glass to metals or wood. Water-based acrylics are used for sealants. They have better adhesion and weather resistance than butyl rubbers and dry more quickly. Most of them are based on polymers of methyl methacrylate. Acrylics are hard and stiff, relatively strong for short-term uses, but somewhat brittle

#### *Specialchem4coatings*

Resin made by the polymerization of acrylic monomers such as acrylates (Methyl, Ethyl, Butyl) or acrylic acid.

#### *Whittington's Dictionary of Plastics, by James W. Carley*

A polymer of acrylic or methacrylic esters, sometimes modified with nonacrylic monomers, such as the ABS group. The acrylates may be methyl, ethyl, butyl or 2-ethylhexyl. Usual methacrylates are the methyl, ethyl, butyl, lauryl and stearyl. The resins may be in the form of mouldin powders or casting syrups, and are noted for their exceptional clarity and optical properties. Acrylics are widely used in lighting fixtures because they are slow-burning or even, with additives, self-extinguishing, and do not produce harmful smoke or gases in the presence of flame.

#### *Wikipedia*

The chemical name for the resin produced from the Methyl methacrylate monomer (MMA) is Polymethyl methacrylate (PMMA). MMA is a transparent and colorless fluid substance.[2] One of the main characteristic features of PMMA is its high transparency. With its high weather resistance, it does not easily turn yellow or crumble by sunlight. Polymethyl methacrylate are used not only for transparent windows in aquariums but also for various items such as signboards in places like convenience stores, taillights of automobiles, cell phone display screens, backlight optical waveguides for liquid crystal displays (LCD) and so on.

#### **Acrylic sheer**

*resil.com/c.htm*

Heavy, rather stringy open-weave vision net, for curtains Heavy, rather stringy open-weave vision net, for curtains, often in two-colour plain weave. Acrylic fibre is very soft and difficult to press, but firmer net of this kind contains about 20% of flax, which improves its texture and handle. Others contain polyester, which behaves like scaffolding

#### **Acrylic-vinyl**

*resil.com/c.htm*

A man-made fibre made of copolymer consisting of 40% acrylonitrile and 60% of vinyl chloride. Available in staple form; used in industrial fabrics, blankets, knit goods, etc

#### **Acrylonitrile, Propenytrile, Vinyl cyanide**

*Ca-bc.com/zip\_internacional/usedmach/education/*

A colorless, volatile, flammable liquid ( $\text{CH}_2=\text{CHCN}$ ) used as a raw material in the manufacture of acrylic polymers and fibers.

*composite.about.com/library/glossary/a/bldef-a113.htm*

A monomer that is most useful in copolymers. Several of its copolymers with styrene are tougher than polystyrene. It is also used as a synthetic fiber and as a chemical intermediate.

*Emcoplastics.com*

A monomer with the structure ( $\text{CH}_2:\text{CHCN}$ ). It is most useful in copolymers. Its copolymer with butadiene is nitrile rubber, and several copolymers with styrene exist that are tougher than polystyrene. It is also used as a synthetic fiber and as a chemical intermediate.

*Encyclopedic Dictionary of Polymers, Volume 1, edited by Jan W. Gooch*

(1) A monomer with the structure  $\text{CH}_2=\text{CH}-\text{CN}$ . It is most useful in copolymers. Its copolymer with butadiene is nitrile rubber, and several copolymers with styrene exist that are tougher than polystyrene. It is also used as a synthetic fibre and as a chemical intermediate.

(2) A raw material for the manufacture of synthetic resins and rubbers. It is a liquid at room temperature, boiling point  $77^\circ\text{C}$ .

*oldnc.3dn.ru/Docs/Harper.C.A.Plastics\_Materials\_and\_Proc-s.pdf*

Acrylonitrile is a monomer with the structure  $\text{CH}_2\text{CHCN}$ . It is most useful in copolymers. Its copolymer with butadiene (acrylonitrile butadiene) is also called nitrile rubber (NBR). Several copolymers with styrene exist that are tougher than polystyrene. Acrylonitrile polymers are also used as synthetic fibers and chemical intermediates.

*Wikipedia*

Acrylonitrile is the chemical compound with the formula  $\text{CH}_2\text{CHCN}$ . This pungent-smelling colorless liquid often appears yellow due to impurities. It is an important monomer for the manufacture of useful plastics. In terms of its molecular structure, it consists of a vinyl group linked to a nitrile.

### **Acrylonitrile copolymer**

*Encyclopedic Dictionary of Polymers, Volume 1 edited by Jan W. Gooch*

A thermoplastic prepared by copolymerisation of acrylonitrile with small amounts of other unsaturated monomers. Has good gas barrier properties and chemical resistance. Processed by extrusion, injection moulding and thermoforming. Used in food packaging.

### **Actimag process**

#### **Actimag postupak**

*Encyclopedic dictionary of named processes in chemical technology, by Alen E. Comnis*

A process for reducing metal ions in aqueous solution by metallic iron. The iron is in the form of particles 1 mm in diameter contained in a fluidized bed and kept in violent agitation by means of an alternating magnetic field. The agitation accelerates the reaction and prevents the adhesion of deposits of reduction products. Demonstrated for reducing the cupric ion to metallic copper, and chromate ion to chromic ion. Developed by Extramet, France, in the 1980s and offered in the United Kingdom by Darcy Products.

### **Actinic**

*amsglossary.allenpress.com/glossary/browse?s=a&p=14*

Pertaining to electromagnetic radiation capable of initiating photochemical reactions, as in photography or the fading of pigments. Because of the particularly strong action of ultraviolet radiation on photochemical processes, the term has come to be almost synonymous with ultraviolet, as in "actinic rays."

*aquatic-hobbyist.com/profiles/misc/glossary-a-e.html*

Technically, the property of radiant energy, especially in the visible and ultraviolet spectral regions, by which chemical changes are produced. In the aquarium, a type of fluorescent light that emulates the blue colour of the sea below 10 meters.

*ASM materials engineering dictionary, by Joseph R. Davis*

Of light, characterised by radiation that causes chemical changes, for example, the effect of light on photographic emulsions, or the effect of UV light on some polymers. Blue and ultraviolet are the most actinic regions of the spectrum.

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

Of or concerned with radiation producing a photochemical effect.

### **Actinic degradation, Ultraviolet degradation**

*Edana.org*

Strength loss or weakening of fibres and fabrics due to exposure to sunlight.

*Inda.org*

Deterioration of physical and aesthetic properties of fibers and fabrics due to exposure to light.

*Polymer science dictionary, by Mark. s.m. Alger, Google books*

Degradation induced by exposure to ultraviolet light (photodegradation) or to high energy degradation.

*resil.com/c.htm*

A weakening or deterioration of fibre A weakening or deterioration of fibre due to exposure to ultraviolet rays of the sun particularly, or artificial light.

### **Actinic glass**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

Glass that transmits most of the visible components of the light spectrum and absorbs most of the infrared and ultraviolet components.

### **Actinic light**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

The light or portion of the spectrum of short wavelengths that produces photochemical changes in light-sensitive emulsions.

### **Actinic resistance, Ultraviolet resistance**

*ca-bc.com/zip\_internacional/usedmach/education/u.html*

Ability to retain strength and resist deterioration on exposure to sunlight.

*embrokeshirepaints.co.uk/glossary.php*

How well a substance can be subject to UV rays from exposure to sunlight without a change in the appearance of the substance.

*resil.com/c.htm*

Ability of textile to retain strength and desist deterioration when exposed to sunlight.

### **Actinic ray**

*dictionary.reference.com/browse/actinic ray*

a ray of light of short wavelengths, as ultraviolet or violet, that produces photochemical effects, or photochemically active radiation, as of the sun.

*Factopia*

Dio elektromagnetskih valova sunčeve (i umjetne) svjetlosti koji proizvodi aktiničke efekte. Aktinični efekti su kemijski efekti sunčane svjetlosti, kao što je to slučaj kod biljaka koje apsorbiraju ugljikov dioksid samo danju, ili srebrnog klorida na fotografskom papiru. Kod tekstilija se aktinički efekt izražava kao *foto degradacija*. Aktinični efekt najjače je izražen kod ljubičastog dijela spektra, najslabije kod crvenog, no proteže se i izvan vidljivog spektra, posebice u ultraljubičasto. Promjena nevidljivih aktiničnih zraka u vidljivu i blistavu svjetlost naziva se *fluorescencijom*.

### **Actinism**

*Factopia*

**Kemijska reakcija koju uzrokuje svjetlo. Različiti dijelovi sunčevog spektra imaju različite sposobnosti uzrokovanja kemijskih promjena. Najbrže promjene događaju se pod utjecajem ljubičastog svjetla i ultraljubičastih zraka, dok crveno svjetlo ima najnižu sposobnost uzrokovanja kemijskih promjena. Kod efekata fotodegradacije tekstila najčešće se misli na djelovanje ultraljubičastog dijela spektra.**

*icknowledge.com/glossary/a.html*

property of radiant energy that produces chemical changes, particularly in the visible and ultraviolet spectrum.

*Wikipedia.org*

In chemical terms actinism is the property of radiation that lets it be absorbed by a molecule and cause a photochemical reaction as a result. Einstein was the first to correctly theorize that each photon would be able to cause only one molecular reaction. This distinction separates photochemical reactions from exothermic reduction reactions triggered by radiation.

For general purposes photochemistry is the commonly used vernacular rather than actinic or actino-chemistry which are again more commonly seen used for photography or imaging.

### **Actinochemistry**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

A branch of chemistry that deals with chemical effects of light and other forms of radiation.

### **Actinometer**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

An instrument used to measure the intensity of radiation, especially that coming from a source causing photochemical reactions, such as the sun.

### **Action**

#### **Djelovanje, Akcija, Aktivnost, Operacija, Postupak, Rad, Radnja; Mjera**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Krivuljni integral skalarnoga umnoška zaleta i vektora pomaka čestice izračunan uzduž staze gibanja. U proširenome značenju djelovanje je određeni integral angažirana preko zadanoga vremenskog intervala.**

### **Action back**

*corporatelo.com/articles/products/616\_291feat4.html*

A jacket back with deep pleats extending upward to each shoulder for added freedom of movement. Used most frequently for activewear or *golf jackets*.

*textileglossary.com/terms/bi-swing-back.html*

A rear insert panel, typically used in jackets. Extra material is gathered or folded to allow more freedom of movement in the shoulder area. Sometimes called an "action back."

### **Action stretch**

*Ca-bc.com/zip\_internacional/usedmach/education/*

A term applied to fabrics and garments that give and recover in both the lengthwise and the widthwise directions. Action stretch is ideal for tight-fitting garments such as ski pants.

*Encyclopedic Dictionary of Polymers, Volume 1 edited by Jan W. Gooch*

A term applied to fabrics and garments that give and recover in both the lengthwise and widthwise directions. Action stretch is ideal for tight-fitting garments, such as ski pants.

*Textile glossary*

Fabrics and apparel with stretch and recovery in both warp and filling directions. Popular in ski-clothes, pants, active sportswear, and other body fitting apparel where free body movement is desired or essential.

### **Activated alumina**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

Al<sub>2</sub>O<sub>3</sub>. A highly porous, granular form of aluminium oxide with an absorptive capacity for moisture and odours found in some gases and liquids. Used in the petroleum industry and in water purification.

*Environmental Engineering Dictionary, edited by C. C. Lee*

A form of aluminium oxide that absorbs moisture readily and is used as a drying agent.

### **Activated carbon, Activated charcoal**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

A highly porous form of charcoal treated so that it can readily absorb large quantities of gases, vapours, or undesirable impurities. Widely used in filtering systems for absorbing gases and solids.

*Antoine.frostburg.edu*

A porous form of carbon that acts as a powerful adsorbent, used to decolorize liquids, recover solvents, and remove toxins from water and air.

*Ca-bc.com/zip\_internacional/usedmach/education/*

Charcoal, mostly of vegetable origin, of high adsorptive capacity. It is used for decolorizing liquids and other adsorption purifications. Usually made by carbonization and chemical activation.

*carpetbuyershandbook.com/carpet-glossary/glossary-a/*

A highly absorbent form of granular carbon treated with high temperature and used to remove odors and toxic substances from liquids or gases, through adsorption or filtration.

*Encyclopedic Dictionary of Polymers, by Jan W. Gooch*

(1) Any form of carbon characterised by high adsorptive capacity of gases, vapours and colloidal solids. (2) A highly adsorbent powdered or granular carbon made usually by carbonisation and chemical activation and used chiefly for purifying by adsorption.

*Enviro-solution.com*

A finely pulverized, black char that has been specially treated to give it the property of attracting and holding colour and odour forming compounds in solvent.

*Environmental Engineering Dictionary, edited by C. C. Lee*

Also known as activated charcoal. Carbon which has been treated by high temperature heating with steam or carbon dioxide to produce an internal porous structure.

*Environmental Engineering Dictionary, edited by C. C. Lee*

(1) Any type of carbon characterised by high adsorptive capacity for gases, vapours and colloidal solids. (2) A highly adsorbent powdered or granular carbon, made usually by carbonisation and chemical activation, and used chiefly for purifying by adsorption.

*epa.gov/OCEPAterms/aterms.html*

A highly adsorbent form of carbon used to remove odors and toxic substances from liquid or gaseous emissions. In waste treatment, it is used to remove dissolved organic matter from waste drinking water. It is also used in motor vehicle evaporative control systems.

*Inda.org*



A form of carbon capable of removing certain gases from air or impurities from water. Carbon is obtained from certain materials, generally of vegetable origin, and activated to

produce a porous structure with a large surface area and adsorptive properties.

*Naftni rječnik – Perić*

**Oblik ugljena koji je karakteriziran visokim apsorpcijskim i adsorpcijskim kapacitetom za plinove, pare i koloidne čvrste čestice.**

*Wikipedia*

Activated carbon, also called activated charcoal or activated coal, is a form of carbon that has been processed to make it extremely porous and thus to have a very large surface area available for adsorption or chemical reactions. [1] The word activated in the name is sometimes substituted by active. Due to its high degree of microporosity, just one gram of activated carbon has a surface area of approximately 500 m<sup>2</sup>, as determined typically by nitrogen gas adsorption. Sufficient activation for useful applications may come solely from the high surface area, though further chemical treatment often enhances the adsorbing properties of the material. Activated carbon is usually derived from charcoal.

### **Activated clay**

*Dictionary of Ceramic Science and Engineering, By Ian McColm*

A clay, such as bentonite, which is treated with acid to improve its bleaching and adsorptive properties.

### **Activated material**

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

Substances treated to exhibit absorptive, adsorptive, or catalytic properties. Such substances include activated alumina, activated earths and activated carbon.

### **Activated monomer**

#### **Aktivirani monomer**

*E. VIDOVIĆ: Glosar pojmova vezanih uz kinetiku, termodinamiku i mehanizme polimerizacije, Kem. Ind. 61 (4) 215–236 (2012)*

**Reaktivna vrsta nastala povrativom reakcijom iz monomera. Aktivirani monomer najčešće je anionska ili kationska vrsta. Primjeri uključuju deprotonirani laktam, protonirani ciklički eter i Lewisovom kiselinom koordinirani lakton.**

### **Activated oxygen bleach**

*aatcc.org/testing/mono/docs/211-Glossary.pdf*

bleaching system comprising an oxygen bleach and a bleach activator.

### **Activated sludge**

#### **Aktivni mulj**

*Environmental Engineering Dictionary, edited by C. C. Lee*

(1) Sludge that contains living organisms. (2) A gelatinous matrix imbedded with filamentous and unicellular bacteria, which serve as food to protozoa. The bacteria genera which predominate depend on the characteristics of the wastewater being treated. The activated sludge treatment of wastewater purification is one of the most common secondary waste treatment processes. (3) Product that results when primary effluent is mixed with bacteria-laden sludge and then agitated and aerated to promote biological treatment, speeding the

breakdown of organic matter in raw sewage undergoing secondary waste treatment (see – Sludge).

### **Activated sludge treatment, Activated sludge process**

*caemi glossary*

A biological method of cleaning up waste waters in three stages. Stage I involves (anaerobic) equilibration. In stage II activated sludge containing micro-organisms is led into an aeration basin to speed up oxidation of organic matter and ammonia. In stage III the sludge is allowed to settle and the treated waste water is run off. Some sludge is removed and a portion is returned to the aeration basin.

*consultwebs.com/legal\_glossaries/toxic\_torts/glossary.html*

A sewage treatment process by which bacteria that feed on organic wastes are continuously circulated and put in contact with organic waste in the presence of oxygen to increase the rate of decomposition.

*Environmental Engineering Dictionary, edited by C. C. Lee*

The process of using biologically active sewage sludge to hasten breakdown of organic matter in raw sewage during secondary waste treatment. The activated sludge is subsequently separated from the treated wastewater (mixed liquor) by sedimentation.

*epa.gov/OCEPAterms/aterms.html*

Product that results when primary effluent is mixed with bacteria-laden sludge and then agitated and aerated to promote biological treatment, speeding the breakdown of organic matter in raw sewage undergoing secondary waste treatment.

*nsc.org/ehc/glossary.html#f*

A sewage treatment process by which bacteria that feed on organic wastes are continuously circulated and put in contact with organic waste in the presence of oxygen to increase the rate of decomposition.

*Wikipedia*

Activated sludge is a process dealing with the treatment of sewage and industrial wastewaters.[1] Atmospheric air or pure oxygen is bubbled through primary treated sewage (or industrial wastewater) combined with organisms to develop a biological floc which reduces the organic content of the sewage. The combination of raw sewage (or industrial wastewater) and biological mass is commonly known as Mixed Liquor. In all activated sludge plants, once the sewage (or industrial wastewater) has received sufficient treatment, excess mixed liquor is discharged into settling tanks and the treated supernatant is run off to undergo further treatment before discharge. Part of the settled material, the sludge, is returned to the head of the aeration system to re-seed the new sewage (or industrial wastewater) entering the tank. This fraction of the floc is called Return Activated Sludge (R.A.S.). Excess sludge which eventually accumulates beyond what is returned is called Waste Activated Sludge (W.A.S.). W.A.S is removed from the treatment process to keep the ratio of biomass to food supplied (sewage or wastewater) in balance. This is called the F:M ratio. W.A.S is stored away from the main treatment process in storage tanks and is further treated by digestion, either under anaerobic or aerobic conditions prior to disposal.

### **Activation, Activating**

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

A treatment which renders nonconductive materials receptive to electroless deposition.

*Encyclopedic Dictionary of Polymers, Volume 1 edited by Jan W. Gooch*

The process of making more active; to make (as molecules) reactive or more reactive. Rendering a thermoplastic surface more receptive to printing inks, paints, adhesives, by chemical treatment such as carbon and alumina.

*Environmental Engineering Dictionary, edited by C. C. Lee*

(1) The process of treating a substance by heat, radiation or the presence of another substance so that the first mentioned substance will undergo chemical or physical change more rapidly or completely. (2) In chemistry, it is a treatment of a substance by heat, radiation or other means to produce a more complete or rapid chemical or physical change. (3) In electricity, it is a process of treating a cathode to increase its rate of reaction.

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

Any process, such as chemical treatment, heat or radiation, which is employed to improve the reactivity or absorptive properties of a material.

*oldnc.3dn.ru/Docs/Harper.C.A.Plastics\_Materials\_and\_Proc-s.pdf*

Activation is a process, usually chemical, that starts the polymerization process or enhances the action of an accelerator. (See also Accelerator.) An activator is a chemical material (usually a minor additive) used in the activation process. Activators are commonly used in unsaturated polyester resin systems and elastomer formulations. Activation is sometimes used to describe the modification of a substrate surface so that coatings or adhesives will more readily bond to that surface. Activation, in this sense, is a surface pretreatment such as chemical etching, flame treating, and corona treating. See also surface preparation. Another use of the term activation is to describe certain adhesive systems that are activated just before bonding. Some adhesives, for example, are activated by exposure to moisture or heat; others require coating with solvent to achieve a tacky state. Such adhesives are generally used because of their convenience.

*Whittington's Dictionary of Plastics, by James W. Carley*

(1) Inducing radioactivity in a specimen by bombardment with neutrons or other type of radiation. (2) Rendering a thermoplastic surface more receptive to printing inks, paints and adhesives by chemical treatment, corona discharge or flame treatment. (3) The energetic elevation of a molecule to a state in which it becomes ready to react with another molecule. (4) The creation of „holes“ within a liquid enabling the „jumping“ of molecules or, in the case of polymers, „flow segments“, and thus enabling flow or creep.

### **Activation analysis**

#### **Aktivacijska analiza**

*Naftni rječnik – Perić*

Metoda određivanja stabilnih izotopa elemenata u uzorku njegovim ozračivanjem (iradijacijom) neutronima, nabijenim česticama ili gama-zrakama koji elemente čine radioaktivnim, nakon čega se oni određuju prema njihovoj karakterističnoj radijaciji (radioaktivnosti). Sinonim: radioactivation analysis; v. neutron analysis.

### **Activation barrier**

#### **Aktivacijska prepreka**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Visina potencijalne prepreke koja razdvaja dva minimuma potencijalne energije fizičkoga sustava.**

### **Activation energy**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

The least amount of energy that must be supplied to a system, over that of a ground state, in order to initiate a particular chemical reaction.

*Antoine.frostburg.edu*

The minimum energy required to convert reactants into products; the difference between the energies of the activated complex and the reactants.

*ASM materials engineering dictionary, by Joseph R. Davis*

The energy required for initiating a reaction – plastic flow, diffusion, or some other chemical reaction. The activation energy may be calculated from the slope of the line obtained by plotting the natural log of the reaction rate versus the reciprocal of the absolute temperature.

*Chemmeddl.org*

The energy barrier over which a reaction must progress in order for reactants to form products.

*Dataphysics.de*

minimum amount of energy, that must be accommodated to a system in order to start a process, mostly for chemical reactions

*Encyclopedic Dictionary of Polymers, Volume 1 edited by Jan W. Gooch*

The energy required to facilitate a reaction between two molecules or the energy required to cause a molecule of liquid or chain segment of a polymer to „jump“ from its present position to a nearby hole (i.e. an empty volume of molecular or chain-segment size) in the liquid. Activation energies are usually expressed per mole of substance and are evaluated by fitting reaction-rate or flow data at several temperatures.

*Environmental Engineering Dictionary, edited by C. C. Lee*

(1) The quantity of heat needed to destabilise molecular bonds and form reactive intermediates so that the reaction will proceed. (2) The minimum heat needed for a chemical reaction to take place.

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

(1) The minimum energy required for a chemical reaction to take place. It is the energy barrier that has to be overcome for reaction to proceed. It determines the way in which the reaction rate varies with temperature. (2) The energy required for initiating a physical process, such as diffusion.

*Learnchem.net*

the threshold energy that must be overcome to produce a chemical reaction

*Shsu.edu*

The energy barrier that must be overcome during a collision of two potential reactants in order for a reaction to occur.

*saskschools.ca/curr\_content/chem30\_05/appendix/glossary.htm*

the amount of energy required to initiate a chemical reaction. The difference in energy of the reactants and the energy of the activated complex.

*Theleavingcert.com*

The minimum amount of energy which colliding molecules must have before they can react together.

*Whittington's dictionary of plastics, by James F. Carley, Lloyd R. Whittington*

The energy required to facilitate reaction between two molecules or the energy required to cause a molecule of liquid or chain segment of a polymer to „jump“ from its present position to a nearby hole (i.e. an empty volume of molecular or chain-segment size) in the liquid.

Activation energies are usually expressed per mole of substance (SI: J/mol)

### **Activation grafting**

#### **Aktivacijsko cijepljenje**

*Polymer science dictionary, by Mark S.M. Alger*

A method of making a graft copolymer by producing, by irradiation, free radical active sites on one polymer in the presence of a monomer for the second polymer. Some selectivity of grafting sites may be achieved by ultraviolet light irradiation by photolysis of carbonyl groups or halogen atoms in a side group. On the other hand, for high energy irradiation, the production of grafting sites is much more indiscriminate.

**Activator**

*vidi*

**Accelerant**

**Active alkali**

## **Aktivna alkalija**

*Environmental Engineering Dictionary, edited by C. C. Lee*

A measure of the strength of alkaline pulping liquor indicating the sum of caustic soda and sodium sulphide, expressed as Na<sub>2</sub>O.

## **Active center, Active site**

### **Aktivni centar, Aktivno mjesto**

*E. VIDOVIĆ: Glosar pojmova vezanih uz kinetiku, termodinamiku i mehanizme polimerizacije, Kem. Ind. 61 (4) 215–236 (2012)*

Aktivno mjesto (active site) (u lančanoj polimerizaciji) kinetički lanac nosilac. Mjesto na lancu nosiocu na kojem dolazi do reakcije. Nazivi “aktivni centar” i “aktivno mjesto” definirani su s obzirom na heterogenu katalizu, a naziv “reaktivno mjesto” upotrebljava se u okviru definicije lančane polimerizacije.

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

A position on the surface of a solid catalyst at which chemical activity occurs.

## **Active environment**

### **Aktivni okoliš**

*Polymer Technology Dictionary, by Tony Whelan*

The environment which promotes environmental stress cracking. The active environment depends upon the particular polymer, but commonly includes detergent, oils, greases and fats. Gases or vapours may also cause failure.

## **Active guarantee**

### **Aktivno jamstvo**

*Ijf.hr, Institut za javne financije*

**Stanje ukupno izdanih jamstava iz tekuće i prethodnih godina koja državi nisu dospjela nas naplatu.**

## **Active Response**

### **Aktivni odgovor**

*ISACA® Glossary of Terms English - Slovenian*

A response in which the system either automatically, or in concert with the user, blocks or otherwise affects the progress of a detected attack. Scope Note: The responses takes one of three forms; amending the environment, collecting more information or striking back against the user.

## **Activewear**

*Academy of textiles*

Garments designed to provide properties such as comfort, support, insulation, and wear resistance required for vigorous exercise or sports activities.

*Wiktionary.org*

casual clothing that is comfortable to wear when exercising or partaking in sport; sportswear

## **Activity**

### **Aktivnost**

*borealisgroup.com/innovation/polymer-dictionary?alphaList='A'*

is a measure which indicates how much polymer a certain amount of catalyst produces in a specified time. For a full definition the polymerisation conditions (mode, temperature, pressure etc.) have to be defined.

*Hghouston.com*

A measure of the chemical potential of a substance, where chemical potential is not equal to concentration, that allows mathematical relations equivalent to those for ideal systems to be used to correlate changes in an experimentally measured quantity with changes in chemical potential.

*everyscience.com/Chemistry/Glossary/A.php*

An effective concentration adjusted to take into account the non-ideality of the solution.

*Građevinsko strukovno nazivlje, Marija Jelaska*

**Sastavnica rada izvedena tijekom trajanja projekta. Aktivnost ima očekivano trajanje, trošak i utrošak resursa.**

*intota.com/experts.asp?strSearchType=all&strQuery=chemical+activity*

A thermodynamic quantity equal to the concentration of solute in a solution. Chemical activities may replace molar concentrations to provide exact equations.

*Naftni rječnik – Perić*

U kemiji – (a) Omjer između fugaciteta (isparljivosti) tvari u nekom danom stanju i njenog fugaciteta u standardnom stanju. Fugacitet u standardnom stanju je jedinica za plin i paru; za čvrste tvari i tekućine on se procjenjuje pri svakoj temperaturi kao fugacitet čiste tvari pri standardnom tlaku. (b) Tendencija tvari da spontano i energično reagira s drugim tvarima.

*Wikipedia.org*

In chemical thermodynamics activity (symbol:  $a$ ) is a measure of the “effective concentration” of a species in a mixture. By convention, it is a dimensionless quantity. The activity of pure substances in condensed phases (solid or liquids) is normally taken as unity. Activity depends on temperature, pressure and composition of the mixture, among other things. For gases, the effective partial pressure is usually referred to as fugacity. The difference between activity and other measures of composition arises because molecules in non-ideal gases or solutions interact with each other, either to attract or to repel each other. The activity of an ion is particularly influenced by its surroundings.

### **Activity coefficient**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

A fractional number that, when multiplied by the actual concentration of a substance in solution, yields the chemical activity. It is a measure of deviation from the ideal state.

*amsglossary.allenpress.com/glossary/browse?s=a&p=16*

A measure of the extent to which substances, on dissolving in water, form charged ions or associate to form multiple molecules; the amount dissolved influences colligative effects, such as equilibrium freezing point depression of solution drops and reaction rates in solution.

*ASM materials engineering dictionar, by Joseph R. Davis*

A characteristic of quantity expressing a deviation of a solution from ideal thermodynamic behaviour. Often used in connection with electrolytes.

*Environmental Engineering Dictionary, edited by C. C. Lee*

An auxiliary thermodynamic function to express the volatile properties of binary systems that exhibit nonideal vapour equilibrium behaviour. It may also be regarded as a correction factor that may be applied to ideal conditions to obtain real system properties under proper temperature and pressure conditions.

*Naftni rječnik – Perić*

**Omjer kemijske aktivnosti i koncentracije.**

*weedinstrument.com/info\_central/glossary/*

A ratio of the activity of species  $i(a_i)$  to its molality ( $C$ ). It is a correction factor which makes the thermodynamic calculations correct. This factor is dependent on ionic strength, temperature, and other parameters.

*Wikipedia.org*

An activity coefficient is a factor used in thermodynamics to account for deviations from ideal behaviour in a mixture of chemical substances.[1] In an ideal mixture the interactions between each pair of chemical species are the same (or more formally, the enthalpy of mixing is zero) and, as a result, properties of the mixtures can be expressed directly in terms of simple concentrations or partial pressures of the substances present e.g. Raoult's law. Deviations from ideality are accommodated by modifying the concentration by an activity coefficient. Analogously, expressions involved gases can be adjusted for non-ideality by scaling partial pressures by a fugacity coefficient. The concept of activity coefficient is closely linked to that of activity in chemistry.

### **Actual cost (AC)**

#### **Stvarni trošak**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

The true cost of producing an item, including not only the manufacturing cost, but also the allocated charges for overhead and other operating expenses.

[građevinarstvo \\_ Struna \\_ Hrvatsko strukovno nazivlje.html](http://građevinarstvo_Struna_Hrvatsko_strukovno_nazivlje.html)

**Ukupni trošak dokumentiran za određeno razdoblje, nastao tijekom obavljanja određene planirane aktivnosti ili sastavnice strukturne raščlambe poslova. Stvarni trošak ponekad mogu sačinjavati samo izravni troškovi radnih sati ili svi troškovi uključujući i izravne troškove.**

### **Actual end count**

*netcomposites.com/glossary*

The number of bundles or splits that are actually counted in one doff of roving. (This is less than the theoretical end count due to splitting efficiencies of less than 100%.

### **Actual time, Observed time**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

(1) The time actually required by a worker to perform a given task or task element. (2) The total hours actually worked by a worker in a particular time period.

### **Actuator**

*desi.iteso.mx/elec/instru/glossary.htm*

A part of the final control element that translates the control signal into action of the final control device in the process. A device that actuates a final control element such as a control valve.

*Dictionary of composite materials technology, by Stuart M. Lee*

Devices that control the movement of mechanical action of a machine indirectly rather than directly or by hand. They can perform linear or rotary motions, and are usually motivated by means of pneumatic or hydraulic cylinders.

*electricmotorwarehouse.com/Glossary.htm*

A device that creates mechanical motion by converting various forms of energy to rotating or linear mechanical energy.

*geafiltration.com/glossary/filtration\_terms\_a.asp*

A device used to transfer motion from one object to another. An actuator activates a movement or a process.

*ti.com/corp/docs/investor/dsp/glossary.htm*

a device to convert an electrical control signal to a physical action. Actuators may be used for flow-control valves, pumps, positioning drives, motors, switches, relays and meters.

*Whittington's dictionary of plastics, by James F. Carley, Lloyd R. Whittington*

A device that controls the movement or mechanical action indirectly, rather than directly or by hand. Actuators can perform linear or rotary motions and usually driven by pneumatic or hydraulic cylinders, or solenoids.

*Wikipedia.org*

An actuator is a mechanical device for moving or controlling a mechanism or system. An actuator typically is a mechanical device that takes energy, usually created by air, electricity, or liquid, and converts that into some kind of motion. In engineering, actuators are frequently used as mechanisms to introduce motion, or to clamp an object so as to prevent motion.

*wilsonselectronics.net/dictionary.htm*

A device that converts an electronic signal into a mechanical motion.

## **Acuity**

### **Oštrina, Vidna oštrina**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Sposobnost oka da razlikuje dvije bliske točke. Vidna se oštrina mjeri lučnim minutama. Najveća je vidna oštrina normalnoga oka oko 0,5'.**

## **Acute effect**

### **Akutni učinak**

*Environmental Engineering Dictionary, edited by C. C. Lee*

An adverse effect on any living organism in which severe symptoms develop rapidly and often subside after the exposure stops.

## **Acute exposure**

### **Akutno izlaganje**

*Environmental Engineering Dictionary, edited by C. C. Lee*

(1) A one-time or short-term exposure with a duration of less than or equal to 24 hours. (2) One dose or multiple doses occurring within a short time (24 hours or less). (3) A single exposure to a toxic substance which results in severe biological harm or death. Acute exposures are usually characterised as lasting no longer than a day, as compared to longer, continuing exposure over a period of time.

## **Acute toxicity**

### **Akutna toksičnost**

*Environmental Engineering Dictionary, edited by C. C. Lee*

(1) A deleterious response (e.g. mortality, disorientation, immobilisation) to a stimulus observed in 96 hours or less. (2) The ability of a substance to cause poisonous effects resulting in severe biological harm or death soon after a single exposure or dose. Also, any severe poisonous effect resulting from a single short-term exposure to a toxic substance. (See-Toxicity.)

## **Acyclic compounds**

### **Aciklički spojevi**

*Naftni rječnik – Perić*

Organski spojevi s molekularnom strukturom u obliku otvorenog lanca (spojevi u kojima su ugljikovi atomi vezani u otvorenom lancu – na primjer, alkani), za razliku od cikličke ili prstenaste strukture (na primjer, kod aromata). Zajednički naziv za zasićene ugljikovodike s ravnim i razgranatim lancima (v. straight-chain hydrocarbons, branched-chain hydrocarbons).



## Acyclic hydrocarbons

### Aciklički ugljikovodici

*Naftni rječnik – Perić*

Ugljikovodici s otvorenim lancem. Organski spojevi čiji atomi tvore otvorene lance, za razliku od alicikličkih i policikličkih ugljikovodika. Uključuju normalne i razgranate alkane, nezasićene alkene s dvostrukim vezama, i nezasićene alkinne s trostrukim vezama; v. hydrocarbons, alkanes, alkenes, alkynes.

## Ada canvas

*Beloved linens*

Name derived from French "Armoires" meaning coat-of-arms. A stiff, rich looking silk, usually black. Uses: cravats, trimmings, facings for men's dress coats. Weave-fancy, called barathea. Width, 20", 36". Art linen. A general term applied to a variety of plain woven linens used for embroidery. May be unbleached, ecru, white; "round thread" i.e., not calendered or smooth. Uses: chiefly needlework as lunch cloths, napkins, doilies, towels, runners; also dresses, skirts, uniforms. Weave-plain. Widths 18", 20", 27", 36", 42", 45", 48", 54". 60", 72", 81", 90"-

*Dry goods*

(A'-Da Canvas). A species of canvas woven of pure linen, and frequently called "Java" and "Fancy Oatmeal." It is made in widths varying from 18 to 54 inches, in all the colors. A cotton canvas of the same weave is known by different names, such as Basket, Con-naught, etc.

## Adamantine

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

(1) Very hard, unbreakable. (2) An appearance and texture description of fracture surfaces of glass ceramics. It is rougher than a glassy fracture, but smoother than a waxy fracture, and appears as a function of crystal size and content. No crystals give the glassy fracture surface, nanosize crystals give the adamantine surface and microsize crystals produce the waxy texture. (3) Having the lustre of a diamond.

## Adapter

### Adapter, Prilagođavalo, Prilagođivač; Pretvarač, Pretvornik

*Extrusion Glossary of Terms, Polydynamics*

In an extruder, the portion of the die assembly that attaches the die to the extruder and provides a flow channel for the molten plastic between the extruder and the die.

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Uređaj koji značajke jednoga uređaja ili sustava prilogađuje značajkama drugoga uređaja ili sustava.**

*Polymer Technology Dictionary, by Tony Whelan*

Connects an extruder to the die and funnels the melt into the die, used to attach dies to the machine. May also change the direction of the flow as there are angled, croshead and offset adapters.

## Adapter sleeve, Pull-type sleeve

### Čahura za upinjanje, Ljuska za upinjanje, Natezna ljuska, Stezna ljuska

*struna\_knj\_14\_strelementi\_04(1381).pdf – Foxit Reader*

**Aksijalno prorezana čahura cilindričnoga provrta i stožaste vanjske površine s vanjskim navojem na tanjemu kraju. Ljuska za upinjanje upotrebljava se zajedno s osovinskom maticom s utorima i zvjezdastim osiguračem kako bi se ležaj sa stožastim provrtom učvrstio na cilindričnu površinu vratila.**

## Adaptive control

### Adaptivno upravljanje, Adaptivno vođenje

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

A method of control that uses data from feedback control signals to adjust system performance to meet specific goals.

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

A method by which input from sensors automatically and continuously adjusts in an attempt to provide near optimum processing conditions.

*Polymer Technology Dictionary, by Tony Whelan*

A control system which automatically changes settings in response to changes in machine performance, so as to try and produce products of the specified quality. A machine is said to have adaptive control if „adapts“ itself to meet a change so as to improve performance, for example, in injection moulding.

## Adaptability

*vidi*

## Conformability

## Adaptive optics

### Adaptacijska optika

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Grana optike koja se bavi prilagodbama optičkih sustava velikih dimenzija koje kompenziraju iskrivljenja slike prouzročena utjecajem atmosfere,**

## Adaptive structure

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

A load-bearing structure whose geometrical configuration and inherent structural characteristics can be changed in order to adapt to environmental changes.

## Add-on

### Dodatak

*vidi*

## Additive

*Aatcc.org*

in textile processing, the amount of any material, chemical finish, coating, sizing, etc. that is applied to a textile. (see also wet pick-up.) NOTE: Add-on is usually determined as a percentage of either the dry or conditioned weight of the textile prior to processing

*dfmg.com.tw/member/standard/aatcc/aatcc/Glossary.pdf*

the amount of any material, chemical finish, coating, sizing, etc. that is applied to a textile.

(see also wet pick-up.) NOTE: Add-on is usually determined as a percentage of either the dry or conditioned weight of the textile prior to processing.

*Future textiles*

The weight of solids left on a given weight of fabric after impregnation and drying. The percentage add-on is given by  $(w_2 - w_1)/w_1 \times 100$ , Where  $w_1$  is the weight of material before impregnation, and  $w_2$  is the weight of material after impregnation and drying. The use of the terms pick up and wet pick up to denote the weight of solids taken up by a fabric is deprecated. Note: Besides impregnation, fabric can be sprayed; lick-roller coated, or foamed and coated resulting in the deposition of a solute. The add-on is then calculated as above.

## Add-on principle

*vidi*

## Superposition principle

|                    |             |                    |
|--------------------|-------------|--------------------|
| <b>Added value</b> | <i>vidi</i> | <b>Value added</b> |
| <b>Addition</b>    | <i>vidi</i> | <b>Additive</b>    |

### Addition of forces

#### Sastavljanje sila

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Operacija u kojoj se vektorskim zbrajanjem dviju ili više sila određuje rezultantna sila.**

### Addition of velocities

#### Zbrajanje brzina

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Operacija u kojoj se vektorskim zbrajanjem dviju ili više brzina određuje rezultantna brzina čestice.**

### Addition polymer

*alcwin.org/Chemical\_Terms\_Description-13-A.htm*

A polymer formed without the loss of any atoms in the monomer. Polyethylene ( $-\text{CH}_2\text{CH}_2-$ )<sub>n</sub> is an addition polymer of ethylene ( $\text{H}_2\text{C}=\text{CH}_2$ ).

*chemeddl.org/collections/ptl/PTL/glossary/a.html*

The kind of polymer that is formed by the combination of monomers without the release of a small molecules at the point where monomers are joined.

*oldnc.3dn.ru/Docs/Harper.C.A.Plastics\_Materials\_and\_Proc-s.pdf*

An addition polymer is one that is formed by a chain reaction, generally through the addition polymerization or free radical polymerization process. Polyethylene and polystyrene are examples of addition polymers. With addition polymers, the loss of a small molecule does not take place during polymerization (as it does with condensation polymers).

*Polymer Science and Technology, by Robert Ebewele*

Addition polymers are produced in a reaction in which monomers are added one after another to a rapidly growing chain. The growing polymer in addition polymerisation proceeds via a chain mechanism. Like all chain reactions, three fundamental steps are involved: initiation, propagation and termination. Monomers generally employed in addition polymerisation are unsaturated (usually with carbon-carbon double bonds). Examples of addition polymers are polystyrene, polyacrylonitrile, poly(methyl methacrylate) and poly(vinyl chloride).

*theleavingcert.com/glossary-of-chemistry-terms/*

A polymer made by the combining together of small unsaturated molecules of the same compound.

*Wikipedia.org*

An addition polymer is a polymer which is formed by an addition reaction, where many monomers bond together via rearrangement of bonds without the loss of any atom or molecule. This is in contrast to a condensation polymer which is formed by a condensation reaction where a molecule, usually water, is lost during the formation.

### Addition polymerisation, Polyaddition, Chain-growth polymerisation

#### Adicijska polimerizacija, Lančana polimerizacija, Poliadicija

*Ca-bc.com/zip\_internacional/usedmach/education/*

A reaction yielding a polymer in which the molecular formula of the repeating unit is identical with that of the monomer. The molecular weight of a polymer so formed is a simple sum of the molecular weight of the combined monomer units. Combination occurs by means of rearrangement of the chemical bonds.

*composite.about.com/library/glossary/a/bldef-a132.htm*

A chemical reaction in which simple molecules (monomers) are added to each other to form long-chain molecules (polymers) without by-products. The molecules of the monomer join together to form a polymeric product in which the molecular formula of the repeating unit is identical with that of the monomer. The molecular weight of the polymer so formed is thus the total of the molecular weights of all of the combined monomer units.

#### *Fiberset*

A polymerization reaction in which no by-products are formed.

#### *Hutchinson*

Polymerization reaction in which a single type of monomer gives rise to a single polymer, with no other reaction products. Addition polymerization occurs in alkenes, hydrocarbons containing double bonds. The alkenes, such as ethene, are the monomers, the small starting molecules. In addition polymerization, ethene undergoes an addition reaction with itself. As one molecule joins to a second, a long molecular chain is built up. The long molecular chain is called a polymer. In the case of ethene, polythene is formed. It is made up of repeating units of the monomer.

#### *Introduction to polymer sciency and technology, by Mustafa Akay*

Vinyl monomers (unsaturated monomers, i.e. they contain carbon-carbon double bonds, such as ethylene or styrene) react by addition polymerisation to produce long chain molecules. The mechanism for addition polymerisation are free radical, anionic and cationic. Free radical, anionic and cationic polymerisations all include three stages – initiation, propagation and termination. Initiation involves the splitting up of the initiator molecules into free radicals by application of heat at a certain temperature, the initiator free radicals then react with monomer molecules, beginning the formation of polymer chains. Examples of initiators include benzoylperoxide  $(C_6H_5COO)_2$  and azo-bis(iso-butyronitrile),  $(NCC(CH_3)_2N)_2$ . The propagation process involves the addition of further monomers to growing free radical chains, generating longer / larger chains. A major difference between radical polymerisation and ionic method is that, in the latter, the incoming monomer must fit between the growing chain end and an associated ion or complex. The growing radical chain, on the other hand, has no such impediment at the growing end. Chain transfer to polymer can also occur as a propagation step in polymerisation. This is the process where a growing chain radical is transferred to the middle of another polymer chain, forming branches on the polymer chains, which can lead to reduced melting point and mechanical strength for the polymer. Branching is especially prevalent in the high-pressure radical polymerisation of ethylene, used in the polymerisation of LDPE. The termination steps involves the reaction of any two free radicals with each other, either by combination or disproportionation. Combination involves the coupling of the two growing chain radicals, while disproportionation is a rather complicated way in which two growing polymer chains are rendered inactive: when two growing chain ends come close together, the unpaired electrons of the chains are exchanged in such a manner that the first chain gains a H element from the second chain and a double bond forms at the head of the second. The addition polymerisation reaction mixture, at a given time, contains monomer, finished polymer, growing polymer chains and any added reagents.

[pmfst.hr/online\\_publikacije/SkriptaPOK.pdf](http://pmfst.hr/online_publikacije/SkriptaPOK.pdf)

Alkeni koji sadrže krajnje dvostruke veze mogu se povezati u dugačke molekule koje zovemo adicijski polimeri. Uz pogodan katalizator pri povišenom tlaku i temperaturi eten polimerizira u polietilen. Pri tom se dvostruke veze u etenu pretvaraju u jednostruke veze u molekuli polietilena. Svojstva polietilena ovise o broju monomera u molekuli polimera, tj. o stupnju polimerizacije. Adicijske reakcije mogu se odvijati kationskim, anionskim i mehanizmom slobodnih radikala.

*Struna – Hrvatsko strukovno nazivlje - Polimeri*

Polimerizacija opetovanim adicijskim procesom kojom se monomeri spajaju u jednostavne dugolančaste molekule bez stvaranja nusproizvoda.

*Technical brief 2011, Glossary of Polymer terms*

A polymerization occurring by addition of successive monomer units, one at a time, to a reactive growing polymer chain, e.g., free-radical polymerization, ring-opening polymerization, ionic polymerization.

*Whittington's Dictionary of Plastics, by James W. Carley*

A reaction in which unsaturated monomer molecules join together to form a polymer in which the molecular formula of the repeating unit is identical (except for the double bond) with that of the monomer. The molecular weight of the polymer so formed is thus the total of the molecular weights of all the combined monomer units

*Wikipedia*

Addition polymerisation, also called polyaddition or chain growth polymerisation, is a polymerisation technique where unsaturated monomer molecules add on to a growing polymer chain one at a time

### **Addition reaction**

*answers.com/topic/addition-reaction-2*

A type of reaction of unsaturated hydrocarbons with hydrogen, halogens, halogen acids, and other reagents, so that no change in valency is observed and the organic compound forms a more complex one.

*dwb4.unl.edu/Chem/CHEM869E/ qlink.queensu.ca/~6jrt/chem210/Page9.html*

polymerization of monomers by a chain mechanism involving active centers on the growing chains

*huntsman.com/pu/Media/PU\_Brochures\_cwp\_glossary.pdf*

A chemical reaction in which molecules are brought together such that only one product is produced. Typically related to the reaction between an unsaturated organic material in which the double bond is converted to a single bond.

*Theleavingscert.com*

Reaction in which the double or triple bond of an unsaturated compound opens up and other atoms add on to the molecule. Addition reactions are characteristic of the alkenes and alkynes.

*Wikipedia.org*

An addition reaction, in organic chemistry, is in its simplest terms an organic reaction where two or more molecules combine to form a larger one. There are two main types of polar addition reactions: (1) Electrophilic addition and (2) Nucleophilic addition. Other non-polar addition reactions exist as well, e.g. Free radical addition. Addition reactions are limited to chemical compounds that have multiply-bonded atoms: (1) Molecules with carbon-carbon double bonds (alkenes) or triple bonds (alkynes) and (2) Molecules with carbon - hetero double bonds like C=O or C=N. An addition reaction is the opposite of an elimination reaction. For instance the hydration reaction of an alkene and the dehydration of an alcohol are addition-elimination pairs.

### **Additional calculation**

#### **Dodatna kalkulacija**

*građevinarstvo \_ Struna \_ Hrvatsko strukovno nazivlje.html*

**Raspoređivanje neizravnih troškova kad su izravni troškovi već poznati i zabilježeni po mjestima i nositeljima troškova. Dodatna kalkulacija temelji se na prethodnom zahvaćanju pojedinačnih (direktnih) troškova i naknadnom dodavanju općih (indirektnih) troškova na osnovi određenog „ključa“.**

**Additive, Addition, Admixture, Add-on, Dope, Improver, Modifier**

## **Aditiv, Dodatak, Pomoćna tvar, Primjesa**

*Borouge Polymer dictionary*

Additives are added to the polymer to protect it from degradation and to give the material desired properties. Normally the additives are mixed with the powder before the extruder.

*Ca-bc.com/zip\_internacional/usedmach/education/*

A supplementary material combined with a base material to provide special properties. For example, pigments are used as dope additives to give color in mass dyeing.

*Environmental Engineering Dictionary, edited by C. C. Lee*

(1) A chemical substance that is intentionally added to another chemical substance to improve its stability or impart some other desirable quality. (2) Materials added to ink in small amounts to alter one or more of its properties. They include driers, anti-skinning agents, dispersing agents, waxes, lubricants, surface active agents, etc.

*Glossary of Paint and Coatings Terminology, M. Pavlič, Ljubljana 2002.*

Any substance, added in small quantities to a coating material, to improve or modify one or more properties. Examples include plasticisers, fungicides, driers etc.

*Hghouston.com*

A substance added in a small amount, usually to a fluid, for a special purpose, such as to reduce friction, corrosion, etc.

*hmgpaint.com/help/glossary/*

A liquid or powder added in small, carefully controlled quantities to a coating, usually in production, which makes important, changes to the performance of the coating in application and/or performance. Their uses include keeping heavy pigments for settling, speeding up drying, preventing skinning in the can, adjusting electrical conductivity for spraying, helping film flow, making the surface of the film more or less slippery, slowing down weathering and reducing smell.

*Hrvatsko nazivlje polimerstva, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Tvar koja se dodaje osnovnomu sastojku radi promjene jednoga svojstva ili više njih.**

**U užem smislu dodatak podrazumijeva samo sastojke koji se dodaju u manjim količinama.**

*Ian J.McColm: Dictionary of Ceramic Science and Engineering, III Edition*

A material added in small quantities to a batch to alter the working or performance characteristics of the batch in a desired manner.

*Ian J.McColm: Dictionary of Ceramic Science and Engineering, III Edition*

A substance added in relatively small quantities to bring about a change in, or to enhance, the properties of another substance.

*Inda.org*

Chemicals added or incorporated into materials to give them different functional or aesthetic

properties, such as flame retardancy and softness.

*Introduction to polymer sciency and technology, by Mustafa Akay*

Most additives fall into one of the following categories: (1) modifiers – such as plasticisers, nucleating agents, clarifiers, impact modifiers, blowing agents, colourants and coupling agents, (2) stabilisers – including antioxidants, heat and UV stabilisers, fire retardants, antistatic agents and fungicides, (3) processing aids, e.g. lubricants, compatibilisers, reducers of melt temperature/pressure etc. Care should be exercised in the usage of additives – even the most useful additive can have a detrimental effect, for example, carbon black greatly reduces tracking resistance of a material and should be avoided in electrical applications, Combining several types of additives into synergistic „packages“ is becoming popular, also formulation of liquid systems, rather than powder, for ease of mixing. The choice of additives must also be dictated by health and safety considerations. Much work is underway to reformulate PVC

additives (incidentally, the largest percent of additives are used in PVC) to eliminate heavy metals, such as lead, barium and cadmium.

*Iultcs.org*

General term for all auxiliaries used in finish formulations.

*Justintanks.com*

Any number of materials used to modify the properties of polymer resins. Categories of additives include reagents, fillers, viscosity modifiers pigments and others.

*netcomposites.com/glossary*

Any substance added to another substance, usually to improve properties, such as plasticizers, initiators, light stabilizers, fungicides, dryers and flame-retardants.

*Nptel.iitm.ac.in*

A material used to modify the properties of polymer resins. Examples include plasticizers, initiators, light stabilizers and flame-retardants.

*Plastics Materials and Processes, by Charles A. Harper, Google books*

An admixture is the addition and homogenous dispersion of several discrete components before cure. The term generally refers to any well-blended mixture of materials that is ready for final processing. More specifically, it refers to polymer alloys that are blends of two or more discrete polymeric resins that do not chemically react but form a compatible mixture.

*Polymer science dictionary, by Mark. s.m. Alger, Google books*

A material used in conjunction with a polymere to produce a polymer compound or composite in order to modify the polymer properties in the desired direction for processing or end use. Usually the term is restricted to the materials mixed reasonably intimately with the polymer. Processing properties are also modified using additives such as lubricants, heat stabilisers or peptisers, as are end-use properties by fillers, plasticisers, blowing agents, impact modifiers, colourants, flame retardant, anti.oxidants, etc.

*Polymer Technology Dictionary, by Tony Whelan*

A substance which is added to a polymer to modify one or more properties. Most plastic products are composed of a mixture of several materials, in addition to the basic polymer. Such additives are used, for example, to enhance the appearance of the final product, to allow for mass-product methods and ensure longer service life. The chief groups of materials for such purposes are plasticisers, anti-ageing additives (heat stabilisers, antioxidant and UV stabilisers), colourants, lubricants, flame retardants and blowing agents. Not every plastic material uses all of the additives listed. Some of the formulations are relatiely simple, while others, noticably those based on polyvinyl chloride, are very complex. The additives may be dispersed at the end-use level within the polymer, so as to form a compound which is, for example, sold as a raw material. Alternatively, a master-batch may be produced and subsequently incorporated by either the supplier or by the processor. Rubbers are normally compounded in-house, whereas themost moulding powders are supplied already compounded. There is a tendency to supply thermoplastics as natural materials, which are then coloured on the machine by a masterbatch. It i most

important that any additive is added at a definite, pre-selected ratio so that the flow properties of the resultant blend, for example, or compound, are consistent.

**REČNIK TRIBOLOŠKIH TERMINA**, B. Ivković, Kragujevac 2012.

**Materijal koji se dodaje mazivima da bi se dobile nove ili poboljšali postojeće osobine. Aditivima se obično menjaju antikorozijska, antihabajuća i antioksidacijska svojstva maziva ali, i druge njihove osobine.**

*SIMINIATI - POMENIĆ – ORŠIĆ: Određivanje osnovnih parametara za injekcijsko prešanje plastike*

Polymers become technically applicable when additives are added to the original polymer in order to improve their properties. Modifications can be made by chemical or physical procedures. Additives are divided according to their functions into a few groups: 1. processing additives: heat stabilizers, lubricants, 2. delimiters, viscosity regulators and thixotropic additives, curing agents/initiator (used at thermosets), 3. mechanical properties modifiers (plasticizers, additives for amplification of toughness, fillers, strengtheners, adherers), 4. surface properties modifiers: outward lubricants, adhesive regulators, antistatics, 5. optical properties modifiers: pigments, 6. additives for amplification of durability (stability), light stabilizers, antioxidants, biocides, 7. other additives: flame retardants, foamers etc.

*Thromas register - General industrial paint components*

When certain properties need to be manipulated or enhanced, additives are often the solution. Thickeners, for example, are additives that help thicken the paint to make application easier. Surfactants help disperse pigments within the paint, ensuring the coat is even and stays in place. Co-solvents help the binder film formation and help prevent paint damage from occurring if the paint is frozen. Co-solvents also make application easier by lengthening the amount of time the paint can be open before beginning to set.

*Wisesolutions.ws/glossary.pdf*

a compound that enhances some property of, or imparts some new property to, the base fluid. In some hydraulic fluid formulations, the additive volume may constitute as much as 20 percent of the final composition. The more important types of additives include anti-oxidants, anti-wear additives, corrosion inhibitors, viscosity index improvers, and foam suppressants.

### **Additive effect, Additivity**

*Environmental Engineering Dictionary, edited by C. C. Lee*

**(1) The combined effects of two or more chemicals, equal to the sum of their individual effects (see – Synergistic effect). (2) A biological response to exposure to multiple substances that equals the sum of responses of all the individual substances added together (compare with antagonistic effect and synergistic effect).**

### **Additive manufacturing**

#### **Aditivna proizvodnja**

*Hrvatska enciklopedija, natuknica*

Dio proizvodnoga strojarstva koji se bavi izradbom predmeta nanošenjem čestica u tankim slojevima. Proizvodni proces započinje konstruiranjem trodimenzionalnoga modela računalnim CAD programima za modeliranje, ili digitaliziranjem prostornoga oblika već postojećega objekta trodimenzionalnim skenerima. Zatim se model pretvara u niz horizontalnih poprečnih presjeka koji se strojem za proizvodnju tvorevina otiskuju sloj po sloj do konačnog proizvoda. Tim se postupcima jednako uspješno mogu izraditi prototipovi, kalupi i alati velike preciznosti te funkcionalni dijelovi spremni za upotrebu. No brzina izradbe, izbor materijala i dimenzije modela zasad su ograničeni. Ovisno o tehnologiji dobivanja slojeva i upotrijebljenim materijalima, koji mogu biti u krutom, tekućem i praškastom stanju, razvijeno je više postupaka aditivne proizvodnje. Najčešće se upotrebljavaju polimerni materijali kao akrilonitril/butadien/stiren (ABS), poliamidi (PA), polikarbonat (PC), poli(metil-metakrilat) (PMMA), (poli(vinilklorid) (PVC), poliuretani (PUR), epoksidne smole, ali i kompozitni materijali (vidi –tehnički materijali),



keramika, čelik, aluminiј, titan i druge lake slitine. Prema primijenjenoј tehnologiji postupci aditivne proizvodnje uobičajeno se razvrstavaju na fotopolimerizaciju (stereolitografija), raspršivanje veziva (trodimenzijski ispis), raspršivanje materijala (PolyJet postupak) i ekstrudiranje materijala (taložno srašćivanje), laminiranje (proizvodnja laminiranih objekata), stapanje praha (selektivno lasersko srašćivanje) i izravno taloženje materijala.

### **Additive primaries, Additive primary colours**

*Bostonprintbuyers.com*

In color reproduction, red, green, and blue (RGB). When lights of these colors are added together, they produce the sensation of white light.

*Clearprintpapercompany.com*

The colors red, green, and blue. When white light is broken down into its component parts, a rainbow (visible spectrum) is created. Dividing the rainbow into about equal thirds results in red light, green light, and blue light. By combining (adding) the three colors of light together, white light is created.

*coloraccuracy.com/default. AdditivePrimaries*

Red, green, and blue light. When all three additive primaries are combined at 100% intensity, white light is produced. When these three are combined at varying intensities, a gamut of different colors is produced. Combining two primaries at 100% produces a subtractive primary, either cyan, magenta, or yellow 100% red + 100% green = yellow; 100% red + 100% blue = magenta; 100% green + 100% blue = cyan. See Subtractive Primaries

*Encyclopedic Dictionary of Polymers, Volume 1* edited by Jan W. Gooch

**Additive primary colors**

Three colored lights from which all other colors can be matched by additive mixture. The three must be selected so that no one of them can be matched by mixture of the other two. Generally, a red, a green, and a blue are used. Additive primaries are the complements of the subtractive primaries.

### **Additive reaction**

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

Chemical reaction in which two components join together to form a single reaction product. In a pure additive reaction, neither of the reactants undergoes molecular fission or splitting, but attaches itself to the other reactant intact. In other additive reactions, one of the reactants may split into two separate parts, each of which attaches itself to the appropriate place of the other intact reactant, yielding a single reaction product.

*Encyclopedic Dictionary of Polymers, Volume 1* edited by Jan W. Gooch

Chemical reaction in which two components join together to form a single reaction product. In a pure additive reaction, neither of the reactants undergoes molecular fission or splitting, but attaches itself to the other reactant intact. In other additive reactions, one of the reactants may split into two separate parts, each of which attaches itself to the appropriate place of the other intact reactant. There is still, however, a single reaction product.

### **Additives in polymer processing**

#### **Dodaci u preradi polimera**

*Polimerni materijali*

Najčešći dodaci u toku prerade su slijedeći:

*Omekšivači* snizuju temperaturu staklišta i time olakšavaju preradu polimera. Druga vrsta omekšivača su oni koji povećavaju rastezljivost, savitljivost i žilavost.

*Stabilizatori* produžavaju vijek trajanja gotovog proizvoda. Najčešće se upotrebljavaju toplinski stabilizatori i svjetlosni stabilizatori, koji povećavaju toplinsku stabilnost, odnosno otpornost prema djelovanju svjetlosti, posebno ultraljubičastih zraka.

*Dodaci za sprečavanje gorenja* su dodaci koji sprečavaju proces izgaranja su aluminijev oksid i silicijev

dioksid. Spojevi halogenih elemenata (klor, brom, jod) stvaraju zaštitni sloj na površini gotovog proizvoda izloženog plamenu.

*Antistatici* sprečavaju nabijanje površine polimera statičkim elektricitetom.

*Pjenila* stvaraju veliku količinu zatvorenih ili otvorenih pora i mjehurića u polimernom materijalu.

*Pigmenti i bojila* daju boju gotovom proizvodu. Mogu biti organskog ili anorganskog porijekla.

*Punila* su inertni dodaci u obliku praha ili kratkih vlakana koji se dodaju polimerima u količini do 25 % ukupnog volumena.

*Ojačala* u obliku vlakana ugrađuju se u polimernu osnovu u količini 50- 80 % ukupnog volumena i bitno poboljšavaju mehaničke karakteristike proizvoda.

Najčešće se upotrebljavaju staklena i ugljikova vlakna.

### **Adduct**

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

A chemical addition product, such as the cyclic product of the addition of a diene with another unsaturated compound (as maleic anhydride).

*Whittington's Dictionary of Plastics, by James W. Carley*

(1) The cyclic product of an addition reaction between one unsaturated compound, such as diene, and another. (2) A crystalline mixture, not a true compound, in which molecules of one of the components are contained within the crystal-lattice framework of the other component. Such complexes are stable at room temperature, but the entrapped component can escape when the mixture is melted or dissolved.

### **Adduct ion**

*IUPAC . Category: Final, Mass Spectrometry Terms, 2013*

Ion formed by the interaction of a precursor ion with one or more atoms or molecules to form an ion containing all the constituent atoms of the precursor ion as well as the additional atoms from the associated atoms or molecules. Note: For example, a Na<sup>+</sup> adduct of a molecule (M) that is represented as [M + Na]<sup>+</sup>.

*Orange book definition 1979*

An ion formed by interaction of two species, usually an ion and a molecule, and often within an ion source, to form an ion containing all the constituent atoms of one species as well as an additional atom or atoms.

*Gold book definition 1997*

An ion formed by interaction of two species, usually an ion and a molecule, and often within the ion source, to form an ion containing all the constituent atoms of one species as well as an additional atom or atoms.

### **Adequate evidence**

## **Odgovarajući dokaz**

*Environmental Engineering Dictionary, edited by C. C. Lee*

The information sufficient to support the reasonable belief that a particular act or emission has occurred.

## **Adherence, Adherency, Clinging, Sticking**

### **Prianjanje**

*Hrvatsko nazivlje polimerstva, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Stanje u kojemu se dvije površine drže zajedno graničnim silama. Prianjanje se može postići uporabom ili bez uporabe adheziva.**

*Iultcs.org*

After the application of a surface finish, leather may be piled grain to grain and flesh to flesh. If the surface finish has not been dried sufficiently, the two grain surfaces may stick together. Separation causes damage to the finish and, in extreme cases, damage to the grain. This may also occur if the finish mixture contains binders that are too soft.

## **Adherence strength, Bond strength**

*Mijnwoordenboek*

the unit load, applied in tension,compression,flexure,peel(ing),impact,cleavage,or shear,required to break an adhesive assembly with failure occurring in or near the plane of the bond

*tiniusolsen.co.uk/resource-center/mechanical-properties-a.html*

The extent to which a coating bonds to a substrate.

## **Adherend**

*composites.ugent.be/home\_made\_composites/documentation/Glossary\_of\_textile\_terms\_for\_composites.pdf*

A body that is **held** to another **body**, usually by an adhesive.

*oldnc.3dn.ru/Docs/Harper.C.A.Plastics\_Materials\_and\_Proc-s.pdf*

An adherend is a body that is held to another body by an adhesive. An adhesive is applied to and bonds to an adherend. Sometimes the terms adherend and substrate are used synonymously. However, a substrate generally refers to a surface before it is bonded, and an adherend to the surface after it is bonded.

*Plastics Materials and Processes, By Charles A. Harper, Google Books*

An adherend is a body that is held to another body by an adhesive, Sometimes the terms adherend and substrate are used synonymously. However, a substrate generally refers to a surface before it is bonded, and an adherend to the surface after it is bonded.

## **Adherometer**

*Encyclopedic Dictionary of Polymers, Volume 1 edited by Jan W. Gooch*

An instrument that measures the force required to strip a coating from a surface.

*Whittington's dictionary of plastics, by James F. Carley, Lloyd R. Whittington*

An instrument that measures the strength of an adhesive bond.

## **Adhesion, Adhesive force, Bonding strength**

### **Adhezija**

*Bisfa.org*

(1) The property denoting the ability of a material to resist delamination or separation into two or more layers. (2) Adhesion, in tyre fabrics - the force required to separate a textile material or steel cord from rubber or other elastomer by a definite prescribed method.

*Ca-bc.com/zip\_internacional/usedmach/education/*

The force that holds different materials together at their interface and resists separation into two layers.

*Carpet glossary*

Molecular attraction that holds the surfaces of two substances in contact. The force that holds different materials together at their interface and resist separation into two layers.

*Chemmeddl.org*

An intermolecular force between unlike molecules, usually occurring where two phases meet.

*Dentalna oprema i materijali, Svojstva materijala*

Adhezija je vezivanje različitih materijala. Kod kontakta dviju tvari molekule jedne tvari vežu se na molekule druge, a ta se pojava naziva adhezijom. Kada se radi o vezivanju istovrsnih molekula govorimo o koheziji. Vezivanje može biti kemijsko i mehaničko. Kemijska adhezija podrazumijeva vezanje na atomskoj ili molekulskoj razini, a mehanička je adhezija rezultat penetracije jedne faze (materijala) u površinu druge. Često se obje adhezije događaju istodobno.

*Factopia*

Prianjanje može postojati između dvije krute tvari, između krute tvari i fluida i između dva fluida. Ista sila zaslužna je i za tendenciju većine tekućina, kad se nježno izliju iz posude, da teku po vanjskoj stijenci posude, odnosno po drugoj površini na koju naiđu.

*Fibreset*

The state in which two surfaces are held together at an interface by forces or interlocking action or both.

*Glossary of Paint and Coatings Terminology, M. Pavlič, Ljubljana 2002.*

The degree of attachment between a coating film and the underlining material. It is the ability of a paint or coating to stick to or attach to a surface and remain fixed for a period of time, without blistering, flaking, cracking, peeling or being removed by tape.

*hmgpaint.com/help/glossary/*

With the exception of strippable coatings used for the temporary protection of polished metal, coatings must have good adhesion, sticking to the substrate despite knocks and atmospheric attack. Adhesion on a porous substrate such as paper may require the binder to be partly carried into the substrate to seal it. Substrates should be thoroughly clean for maximum adhesion, and may need a degree of surface roughness to be provided, as, for example, when domestic gloss paint is rubbed down with abrasive paper or steel is shot blasted before coating.

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Međusobno privlačenje površina dvaju tijela koja su načinjena od različitih tvari**

*Kazalo polimera*

**Povezivanje dvaju tijela međuslojnim silama ili mehaničkim blokiranjem u mikrometarskom ili manjem mjerilu.**

*Polymer science dictionary, by Mark S.M.Alger*

The attraction between a solid surface and a liquid, or another solid surface. The adhesion between a liquid, which may subsequently solidify (the adhesive) and two solid surfaces (the adherents) gives such an adhesive joint its strength. Most adhesives are based on polymers. Adhesion results from the intermolecular forces of attraction and also possible from chemical bonding of the liquid to the solids. However, in an adhesive joint, the strength of adhesion, as measured by some destructive tests, is much less than that calculated for intermolecular forces. This is due to several factors. Defects in joined surfaces may result in stress concentrations. In testing, the surfaces will not remain exactly parallel, so peeling will occur and the molecular interactions will be disrupted sequentially, not all simultaneously. Additional stress may be present due to shrinkage during setting of the adhesive or differential expansion/contraction between adhesive and adherends. Often uniform stress transfer between adherent and adhesive does not occur, so local stresses may be many times the mean stress. Furthermore, defects may be present at the interface, where the adhesive has not covered the adherend surface completely, owing to its inability to sufficiently wet it. These also cause stress concentrations. Thus joint stress increases with decreasing contact angle and with roughness. Spreading will also depend on the critical surface tension of the solid surface.

*powder-coatings.org.uk/default.asp?edit\_id=41&nav=33&branch=0#I*

Molecular attraction to the substrate surface to which a powder coating is applied. A condition where one material is attached to another by means of surface attraction. Adhesion is affected by the condition of the surface to be coated, by the closeness of contact and molecular forces. The surface being coated should allow a certain amount of penetration, be chemically clean, be hard, not too smooth and non-porous, to achieve good adhesion.

*REČNIK TRIBOLOŠKIH TERMINA , B. Ivković, Kragujevac 2012.*

**Pojava frikcionih veza (zavaranih spojeva) u zoni kontakta dva čvrsta tela pod dejstvom spoljašnjeg opterećenja.**

*Richterprecision.com*

The attractive molecular force that tends to hold together unlike bodies where they are in contact. When discussing coatings, adhesion refers to the strength of the bond between the coating and the substrate.

*Specialchem4coatings*

Degree of attachment between a coating film and the underlying material to which it is in contact. The two surfaces are held together by interfacial forces which may consist of valence forces or interlocking action.

*Wikipedia*

Adhesion is the tendency of certain dissimilar molecules to cling together due to attractive forces.

**Adhesion**

*vidi*

**Bond**

**Adhesion activated yarn**

**Preda obradena za prijanjanje**

*Encyclopedic Dictionary of Polymers, Volume 1 edited by Jan W. Gooch*

Yarn treated by the fibre manufacturer to promote better adhesion to another material, such as rubber, and/or allowing easier processing.

**Adhesion failure**

*composite.about.com/library/glossary/a/bldef-a144.htm*

The separation of two bonded surfaces at an interface by the application of force.

*Fibreset*

A rupture of an adhesive bond that appears to be a separation at the adhesive/adherend interface.

**Adhesion in friction**

**Tarna adhezija**

*struna\_knj\_14\_strelementi\_04(1381).pdf – Foxit Reader*

**Lokalno privlačenje prouzročeno molekulskim silama između dvaju tijela koja klize jedno po drugome.**

**Adhesion promoter, Bonding agent, Chemical bonding agent**

**Prijanjaló, Regulator adhezivnosti, Sredstvo za kemijsko vezanje, Sredstvo za prijanjanje, Vezivo, Vezivno sredstvo**

*vidi*

**Compatibiliser, Coupling agent, Primer**

*About.com*

A substance which is applied to a substrate to improve the adhesion of a coating to the substrate. Typical adhesion promoters are based on silanes and silicones with hydrolyzable groups on one end of their molecules which react with moisture to yield silanol groups, which in turn react with or adsorb inorganic surfaces to enable strong bonds to be made. At the other ends of the molecules are reactive, but nonhydrolyzable groups that are compatible with resin formulations.

*Academy of textiles*

Products used to treat the smooth fiber-face of closely constructed base fabric to provide a chemical bonding site for subsequent coating. This step is done because it is difficult to get good coating adhesion via strike through and mechanical bonding in closely constructed fabrics. Products containing the isocyanate group are the most widely used promoters.

*Ca-bc.com/zip\_internacional/usedmach/education/*

Products used to treat the smooth fiber-face of closely constructed base fabric to provide a chemical bonding site for subsequent coating. This step is done because it is difficult to get good coating adhesion via strikethrough and mechanical bonding in closely constructed fabrics. Products containing the isocyanate group are the most widely used promoters. (Also see DIP TREATING.)

*Emcoplastics.com*

A coating which is applied to the substrate before it is extrusion coated with the plastic and which improves the adhesion of the plastic to the substrate.

*HAND BOOK ON GLOSSARY OF TEXTILE TERMS, BUREAU OF INDIAN STANDARDS NEW DELHI 110 002, UDC 001.4/677 (021) ISBN 81-7061-009-5*

A material applied to fibre or yarn assemblies, with the intention of maintaining the assembly in the required conformation.

*netcomposites.com/glossary*

A coating applied to a substrate before it is coated with an adhesive, to improve the adhesion of the plastic. Also called primer.

*Polymer Technology Dictionary, by Tony Whelan*

Usual used in connection with fillers or with fibres. Chemical bonding agents are used in an effort to improve the properties of composites. Such coupling agent contains a chemical group which will react with the group on the filler/fibre surface and another group which will react with, or dissolve in, the polymer. (See – Glass fibre.)

*Polimerni materijali, skripta*

**Polimeri su u načelu nepolarni. U kompaktnim kompozicijskim materijalima treba što bolje slijepiti polimere u polarne materijale, pa im se stoga dodaju polarne tvari, obično niskomolekularni spojevi s polarnim skupinama, tj. različite kiseline, amini, fosforni spojevi i titanati.**

*Prerada plastike i gume, M.Erceg, KTF Split, 2015*

**Koriste se uglavnom kod staklom ojačanih polimernih materijala. Svrha: bolje prianjanje smole uz vlakno (povećanje adhezivnosti). Prianjala: monomerni silicijski spojevi - silani, parafinsko ulje, ftalati, butil-stearat, titanati i aluminati.**

*Specialchem4coatings*

Material used to improve adhesion between materials. May be used in two different modes: by pre-treatment of a substrate, and as a component in coating formulation capable of enhancing adhesion durability due to the improvement in substrate wetting and formation of chemical bonds across the film/substrate interface.

*specialchem4polymers.com/resources/glossary/index.aspx?id=A*

Adhesion promoters act at the interface to increase the adhesion between two substrates through the reduction of the interfacial tension. When the adhesion promoter is used to increase adhesion between two incompatible polymers it is also called a Compatibilizer. When the adhesion promoter is used to increase adhesion between a polymer and a filler it is called a coupling agent. Compatibilizers or coupling agents can be reactive or non reactive. *Syn.* Bonding agent.

*Struna – Hrvatsko strukovno nazivlje – Polimeri*

**Tvar koja potiče ili osigurava čvršće povezivanje smole kao matrice i ojačivala.**

*Whittington's dictionary of plastics, by James F. Carley, Lloyd R. Whittington*

A coating that is applied to a substrate before it is coated with a plastic, to improve the adhesion of the plastic to the substrate. Typical adhesion promoters are based on silanes and silicones with hydrolysable groups on one end of their molecules that react with moisture to yield silanol groups, which in turn react with or absorb to inorganic surfaces to enable strong bonds to be made. At the other ends of the molecules are reactive, but nonhydrolysable groups that are compatible with resins or elastomers in adhesive formulations. Adhesion promoters are added to the adhesive as water or ethanol solutions.

### **Adhesion test**

*mecmesin.com/knowledge-centre/glossary*

This test determines the level of adhesion or adherence between two layers, or the strength of adhesion between a coating and substrate material.

*Trelleborg.com*

The adhesion of coating to fabric or between plies of multi-ply fabric is determined by pulling or peeling them apart. The coating or bias plies, or knit fabrics, must be supported by cementing to a non-stretchy material. The jaws must be wider than the specimen. Results may be expressed as pounds per inch of width or pounds per 2" of width.

*Wikipedia.org*

Adhesion testing in the paint and coating industries is necessary to ensure the paint or coating will adhere properly to the substrates to which they are applied. There are three different tests to measure the resistance of paints and coatings from substrates: cross-cut test, scrape adhesion, and pull-off test.

### **Adhesion tester**

*Azom*

Adhesion Testers are an important instrument for determining how well a coating bonds to a substrate or how well an adhesive bonds two materials. Coatings are becoming more popular as engineering requirements demand higher levels of performance from components. For coatings to perform satisfactorily, they must adhere to the substrates on which they are applied. A variety of recognized methods can be used to determine how well a coating is bonded to the substrate. Commonly used measuring techniques are performed with a knife or with a pull-on pull-off adhesion tester. See – Hesiometer.

### **Adhesive, Binding agent, Cement**

#### **Ljepilo, Adheziv, Vezivo**

*ch.ic.ac.uk/vchemlib/mol/glossary/*

Any compound that can stick two surfaces together is classified as an adhesive. Simple adhesives are of cellulose, starch and rubbers. Modern adhesives are based upon complex polymeric materials. The adhesive is spread in an unpolymerised form, and the adhesive properties increase as polymerisation occurs between the two surfaces.

*Dictionary of Ceramic Science and Engineering, By Ian McColm*

A mucilaginous or cementitious substance placed or spread between two solid surfaces to bind the surfaces together, usually a colloidal solution which gels.

*Emcoplastics.com*

A substance which applied as an intermediate is capable of holding materials together by surface attachment.

*Encyclopedic Dictionary of Polymers, Volume 1 edited by Jan W. Gooch*

A material or a mixture of materials (without aggregate) which, when in a plastic state, possesses adhesive and cohesive properties and hardens in place. Frequently, the term is used incorrectly for concrete, e.g., a "cement" block for concrete block (n) See adhesive. (v) See bond.

*etfinancial.com/coatingsgloss.htm*

A substance capable of holding materials together by surface attachment. Various descriptive adjectives are used with the term adhesive to indicate certain characteristics: physical (liquid adhesive, tape adhesive), chemical type (silicate adhesive, resin adhesive), materials bonded (paper adhesive), and conditions of use (hot-set adhesive).

*Glass.org*

Any substance that is capable of bonding other substances together by surface attachment.

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

A mucilaginous or cementitious substance placed or spread between two solid surfaces to bind the surfaces together. Usually a colloidal solution that gels.

*Glossary of Paint and Coatings Terminology, M. Pavlič, Ljubljana 2002.*

A substance capable of holding materials together by surface attachment. Various descriptive adjectives are used with the term to indicate certain characteristics: physical (liquid adhesive, tape adhesive), chemical type (silicate adhesive, resin adhesive, materials bonded (paper adhesive), and conditions of use (hot-set adhesive).

*homepage.mac.com/peterhyndman/PDRinfo/PDRhistory/dictionary.html*

Any substance that will wet two surfaces then harden to join them together. It needs to be approximately as strong as the the material being joined.

*Hrvatsko nazivlje polimerstva, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Tvar koja spaja ili veže različite površine. Razlikuju se adhezivna brtvila i adhezivna ljepila.**

*Iultcs.org*

(1) Substance used to bond two or more solids so that they act or can be used as a single piece; examples are resins, glue, paste, cement, putty and polyvinyl resin emulsions.

(2) In the footwear industry it is known as cement and it is used to bond the outsole or linings to the upper.

*Kent and Riegel's Handbook of Industrial Chemistry and Biotechnology, by James A. Kent*

Materials are generally defined as adhesives by what they do. Almost all organic polymer, and even many inorganic materials, can function as adhesives in some situations. However, whether they are organic polymers or inorganic, or perhaps even solders or brazing alloys, all adhesives share common traits in performing their functions. (1) An adhesive, by surface attachment only, transfers and distributes mechanical loads among the components of an assembly. (2) At some time in the course of bond formation, the adhesive must be liquid, or behave like liquid, in order to wet the adherends. (3) An adhesive carries some continuous, and often variable, load throughout its life. (4) An adhesive must work with the other components of the assembly to provide a durable product that is resistant to degradation by elements of the environment in which it will be used. The expectations of the user are extremely important in determining whether an adhesive is „good“ or „bad“. Adhesives are judged on the ability of the whole assembly to meet the user's expectations, which will, in turn, depend on the way the assembly is loaded and tested, and on what and where the weakest points of the assembly are located. Adhesion is not an intrinsic property of any polymer, but is rather a property of the whole assembly. Structural adhesives are distinguished from non-structural adhesives by the magnitude of the load that they carry.

*Netcomposites*

A substance capable of holding two materials together by surface attachment. Adhesive can be in film, liquid, or paste form.

*silicates.com/leading-glossary.asp*

A substance used to bond two substances together by surface attachment. Examples are resins, formaldehyde, glue, paste, cement, putty and polyvinyl resin emulsions. Silicates act as adhesives in the formation of paper fiber drums and tubes.

*Staticworx*

Any of several chemical compounds used to bond the secondary backing to the carpet. These substances also bond the tufted yarn into the carpet.



## *Struna – Hrvatsko strukovno nazivlje - Polimeri*

**Kapljevita adhezivna tvar kojom se sljepljuju dva dijela sklopa ili više njih.**

### *Textilebol*

A variety of chemical compounds used to bond the secondary backing to the carpet. These substances also bond the tufted yarn into the carpet. Adhesives are an essential part of the manufacturing process for a variety of apparel applications ranging from applying labels, decorative trim and waterproofing tapes to innovative solutions like stitchless garment construction.

### *Thefloorpro*

A substance which dries to a film capable of holding materials together by surface attraction.

### *Wikipedia*

Adhesive or glue is a compound in a liquid or semi-liquid state that adheres or bonds items together. Adhesives may come from either natural or synthetic sources. Some modern adhesives are extremely strong, and are becoming increasingly important in modern construction and industry. The types of materials that can be bonded using adhesives is virtually limitless, but they are especially useful for bonding thin materials. Adhesives usually require a controlled temperature and temperature to cure or set. They can be electrically and thermally conductive or nonconductive.

## **Adhesive activated yarns**

*Ca-bc.com/zip\_internacional/usedmach/education/*

Yarns treated by the fiber manufacturer to promote better adhesion to another material such as rubber and/or to allow easier processing.

*talktextiles.com/nuke/Glossary/tabid/59/Default.aspx?topic=Mixed+End+Yarn*

Yarns treated by the fiber manufacturer to promote better adhesion to another material such as rubber and/or to allow easier processing.

## **Adhesive-bonded nonwovens, Adhesive bonded fabrics**

*Coatings technology handbook, By Donatas Satas, Arthur A. Tracton, Google books*

Adhesive-bonded fabrics are made by the physical-chemical method, in which webs of fibres are strengthened by fibre-to-fibre adhesion. The web is prepared on special equipment based on carding or the aerodynamic principle; such machinery are capable of producing webs of random or oriented fibre distribution. The quality of the web determines to a large extent the quality of the nonwoven fabric. Adhesive-bonded fabric manufacturing uses a wide range of natural and man-made fibres and their blends. Adhesion is achieved by means of a bonding agent, which may be an aqueous emulsion or a thermoplastic additive to the web. The mechanical properties of fabrics depend highly on binder content, fibre type and fibre orientation in the web

### *Future textiles*

Textile material composed of a web or batt of fibres, bonded by the application of adhesive material. Methods of application include saturation bonding, spray bonding, print bonding, and foam bonding.

*sava.in/textile-glossary-collection/FC-fabrics.sava.in/textile-glossary-collection/FC-fabrics*

Textile material composed of a web or batt of fibres, bonded together by the application of adhesive. The method of application of the adhesive and the density of the fibre web determine the character of the end product. Also known as bonded fibre fabric.

## **Adhesive bonding**

*vidi*

## **Bond**

## **Adhesive bra, Self-adhesive bra**

*intimateguide.com/products/articles/bra-glossary/*

Uses medical-grade adhesive to stick to your body. May be one piece or 2 separate cups. Provides minimal support, but often leaves little bra to be seen under low cut or backless clothing.

*myfinelingerie.com/bra-styles.html*

Adhesive bras are comprised of bra cups with medical grade adhesive on one side, which allow for the adhesive bra to be worn several times. Adhesive bras provide little support, however, they help fill out the bust as well as conceal the nipple under light fabrics.

*wisegeek.com/what-is-an-adhesive-bra.htm*

The adhesive bra comes in several forms. The most popular is the one invented by NuBra in 2002. It is comprised of two silicone cups attached with a front hook that are supposed to adhere to the body. According to the manufacturer, the bra is wonderful because it eliminates shoulder straps and back straps, promoting better comfort. If the instructions are followed closely, the adhesive bra should adhere to the skin for about six hours.

## Adhesive composites

### Ljepljeni kompoziti

*Polimerni materijali*

Lijepljeni kompoziti dobivaju se spajanjem više slojeva različitih materijala, primjenom lijepila na bazi polimernog veziva. Jezgro je najčešće lagan i čvrst materijal, rimjerice iverica, kartonska rešetka, drveni skelet. Ovakav kompozit može da bude dobar toplinski izolator ako se kao jezgro upotrebi primjerice ploča od staklene ili sintetske pjene.

### Adhesive failure, Adhesion failure

*composites.ugent.be/home\_made\_composites/documentation/Glossary\_of\_textile\_terms\_for\_composites.pdf*

Rupture of an **adhesive** bond such that the separation **appears to** be at the adhesive-adherend **interface**.

*Ebnesajjad*

Failure of an adhesive bond at the adhesive/adherent interface. An example is an adhesive failure that leaves adhesive all on one adherend, with none on the other adherend. Adhesive failure is less desirable than cohesive failure, because it is indicative of a joint with lower adhesive strength.

*en.wikipedia.org/wiki/Adhesive*

Failure of the adhesive joint can occur in different locations.

There are several factors that could contribute to the failure of two adhered surfaces. Sunlight and heat may weaken the adhesive. Solvents can deteriorate or dissolve adhesive. Physical stresses may also cause the separation of surfaces. When subjected to loading, debonding may occur at different locations in the adhesive joint. The major fracture types are the following:

Cohesive fracture

Cohesive fracture is obtained if a crack propagates in the bulk polymer which constitutes the adhesive. In this case the surfaces of both adherends after debonding will be covered by fractured adhesive. The crack may propagate in the center of the layer or near an interface. For this last case, the cohesive fracture can be said to be “cohesive near the interface”.

Adhesive fracture

Adhesive fracture (sometimes referred to as interfacial fracture) is when debonding occurs between the adhesive and the adherend. In most cases, the occurrence of adhesive fracture for a given adhesive goes along with smaller fracture toughness.

Other types of fracture

Other types of fracture include:

The mixed type, which occurs if the crack propagates at some spots in a cohesive and in others in an interfacial manner. Mixed fracture surfaces can be characterised by a certain percentage of adhesive and cohesive areas.

The alternating crack path type which occurs if the cracks jump from one interface to the other. This type of fracture appears in the presence of tensile pre-stresses in the adhesive layer.

Fracture can also occur in the adherend if the adhesive is tougher than the adherend. In this case, the adhesive remains intact and is still bonded to one substrate and remnants of the other. For example, when one removes a price label, the adhesive usually remains on the label and the surface. This is cohesive failure. If, however, a layer of paper remains stuck to the surface, the adhesive has not failed.

*Fluoroplastics: Melt Processible Fluoropolymers : The Definitive Users Guide, by Sina Encyclopedic Dictionary of Polymers, Volume 1 edited by Jan W. Gooch*

The rupture of an adhesive bond, such that the separation appears to be at the adhesive adherend interface. **Note**—Sometimes termed failure in adhesion.

[glass.org/indres/glossary.htm](http://glass.org/indres/glossary.htm)

Adhesive failure indicated by the material's failing (pulling loose) at the surface of the substrate. Similar to "scotch" tape peeling off a plastic substrate.

[Nptel.iitm.ac.in](http://Nptel.iitm.ac.in)

Rupture of an adhesive bond such that the separation appears to be at the adhesive-adherend interface.

[oldnc.3dn.ru/Docs/Harper.C.A.Plastics\\_Materials\\_and\\_Proc-s.pdf](http://oldnc.3dn.ru/Docs/Harper.C.A.Plastics_Materials_and_Proc-s.pdf)

Adhesive failure occurs when there is rupture of an adhesive bond such that the separation appears to be at the adhesive/adherend interface. When rupture occurs within one of the materials (either the adhesive or the adherend), the failure is said to be a cohesive failure.

### **Adhesive film**

[netcomposites.com/glossary](http://netcomposites.com/glossary)

A synthetic resin adhesive, with or without a film carrier fabric, usually of the thermosetting type, in the form of a thin film of resin, used under heat and pressure as an interleaf in the production of bonded structures.

[Sp-bac.nl](http://Sp-bac.nl)

A polymer resin adhesive, usually thermosetting, in the form of a thin dry film of resin, used under heat and pressure as an interleaf in the production of laminated materials or for bonding to core materials.

*Whittington's dictionary of plastics, by James F. Carley, Lloyd R. Whittington*

A thin film of dry resin, usually a thermoset, used as an interleaf in the production of laminates. Heat and pressure applied in the laminating process cause the film to bond the layers together.

### **Adhesive joint, Adhesive line, Bonded joint, Cemented joint, Glued joint**

#### **Lijepljeni spoj**

*Hrvatsko nazivlje polimerstva, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Prostor ispunjen ljepljivom među dijelovima koji se lijepe ili u lijepljenoj tvorevini.**

*oldnc.3dn.ru/Docs/Harper.C.A.Plastics\_Materials\_and\_Proc-s.pdf*

The adhesive joint is the location at which two adherends are held together with a layer of adhesive. It is the general area of contact for a bonded structure. Generally, the adhesive joint is made up of components other than the adhesive and adherend. Metal oxides, contamination, mold release agent, moisture, and other such components may also be present at the adhesive joint area.

*struna\_knj\_14\_strelementi\_04(1381).pdf – Foxit Reader*

**Spoj dobiven lijepljenjem. Lijepljeni spojevi imaju, između ostalog, prednost da im je potrebno malo prostora i laki su.**

### **Adhesive lamination**

*abc-packaging.com/library/glossary.asp*

A laminating process in which individual layers of multi-layer packaging materials are laminated to each other with an adhesive.

*tappi.org/content/events/07europlace/presentation/07europl48.pdf*

Combination of various substrates with polymer films into a single multi-layer structure by means of an adhesive.

### **Adhesive line**

*vidi*

### **Adhesive joint**

### **Adhesive migration**

*Ca-bc.com/zip\_internacional/usedmach/education/*

In nonwovens, the movement of adhesive together with its carrier solvent in a fabric during drying, giving it a non-uniform distribution within the web, usually increasing to the outer layers.

*Inda.org*

The movement of adhesive in a fabric during drying or curing, to give it a non-uniform

distribution within the web usually increasing to the outer layers.

### **Adhesive strength**

#### **Čvrstoća adhezije**

*Dictionary of Ceramic Science and Engineering, By Ian McColm*

The stress required to separate two bonded surfaces.

*Glossary of Paint and Coatings Terminology, M. Pavlič, Ljubljana 2002.*

The sum total of the forces of attachment between a dry film and its substrate.

### **Adhesive tape**

*vidi*

### **Film adhesive**

### **Adhesive wear**

#### **Adhezijsko habanje, Adhezijsko trošenje, Adhezivno habanje**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

The process of wear that occurs when two solid surfaces slide over one another under pressure and welding of asperities occur.

*Dictionary of composite materials technology, by Stuart M. Lee*

Due to material transfer between two surfaces or loss from either surfaces between contacting bonded surfaces.

*machinerylubrication.com/Glossary*

Is often referred to as galling, scuffing, scoring, or seizing. It happens when sliding surfaces contact one another, causing fragments to be pulled from one surface and to adhere to the other.

[nhml.com/resources\\_NHML\\_Definitions.cfm](http://nhml.com/resources_NHML_Definitions.cfm)

The removal or displacement of material from a surface by the welding together and subsequent shearing of minute areas of two surfaces that slide across each other under pressure. In advanced stages, may lead to galling. Contrast with *abrasive wear*.

*REČNIK TRIBOLOŠKIH TERMINA*, B. Ivković, Kragujevac 2012.

**Habanje koje nastaje zbog raskida frikcionih veza u zoni kontakta čvrstih tela i prenosa materijala sa jedne na drugu površinu i okolinu.**

[Richterprecision.com](http://Richterprecision.com)

A condition whereby excessive friction between high spots results in localized welding with subsequent spalling and further roughening of the rubbing surfaces of one or both of the mating parts.

[struna\\_knj\\_14\\_strelementi\\_04\(1381\).pdf – Foxit Reader](#)

**Trošenje prouzročeno adhezijom i trganjem materijala s površine tijela.**

[telfordsmith.com.au/glossary.asp?letter=F&page=5](http://telfordsmith.com.au/glossary.asp?letter=F&page=5)

Wear resulting from two metals rubbing against each other, such as the screw flight lands and valve rings coming into contact with the barrel lining during operation.

## **Adiabat**

### **Adijabata**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Krivulja koja prikazuje ovisnost tlaka o obujmu pri adijabatskoj promjeni stanja plina**

## **Adiabatic**

[borealisgroup.com/innovation/polymer-dictionary?alphaList='A'](http://borealisgroup.com/innovation/polymer-dictionary?alphaList='A')

An adiabatic process is a process that occurs without heat entering or leaving a system. In general, an adiabatic change involves a fall or rise in temperature of the system. An adiabatic chemical process does not have any external heaters or coolers.

[ch.ic.ac.uk/vchemlib/mol/glossary/](http://ch.ic.ac.uk/vchemlib/mol/glossary/)

A chemical or mechanical process which takes place without heat entering or leaving the system. The term is only applicable to enclosed and isolated systems - so in essence is idealistic and purely theoretical and is important in the study of thermodynamics.

[flowmeterdirectory.com/sensor\\_terminology\\_a.html](http://flowmeterdirectory.com/sensor_terminology_a.html)

a process which takes place without any exchange of heat between a system and its surrounding

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

(1) A process in which the change is associated with a change in the temperature of a system since the system is surrounded by a barrier that does not permit heat to pass. (2) An occurrence which takes place without a loss or gain of heat, such as expansion or contraction of bodies during drying at constant temperature.

[spwla.org/library\\_info/glossary/reference/glossa/glossa.htm](http://spwla.org/library_info/glossary/reference/glossa/glossa.htm)

An adiabatic process is one in which there is no exchange of heat with the surroundings. The relationship of pressure and volume when a gas or other fluid is compressed or expanded with no loss or gain of heat. In an adiabatic process, compression causes an increase in temperature and expansion a decrease in temperature.

[telfordsmith.com.au/glossary.asp?letter=F&page=5](http://telfordsmith.com.au/glossary.asp?letter=F&page=5)

An adjective used to describe a process or transformation in which no heat is added to or allowed to escape from the system under consideration. It is used, somewhat incorrectly, to describe a mode of extrusion in which no external heat is added to the extruder although heat

may be removed by cooling to keep the output temperature of the melt passing through the extruder constant. The heat input in such a process is developed by the screw as its mechanical energy is converted to thermal energy.

### **Adiabatic approximation**

#### **Adijabatska aproksimacija**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Proračun promjene termodinamičkoga stanja sustava u kojemu ne dolazi do izmjene energije između sustava i okoline**

### **Adiabatic calorimeter**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

A calorimeter that is heavily insulated to minimise heat loss or gain, so as to provide more accurate measurement of the thermal effects of the reaction.

### **Adiabatic change**

#### **Adijabatska promjena.**

*Naftni rječnik – Perić*

Pomjena volumena, tlaka ili temperature plina bez neto gubitka ili dobitka topline.

### **Adiabatic compression**

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

A reduction in the volume of a substance without heat flows, in or out.

### **Adiabatic cooling**

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

A process in which the temperature of a system is reduced without any heat being exchanged between the system and its surroundings.

### **Adiabatic envelope**

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

A surface enclosing a thermodynamic system in an equilibrium, which can be disturbed only by long-range forces or by motion of a part of the envelope. This simply means that no heat can flow through the surface.

### **Adiabatic extrusion**

#### **Adijabatska ekstruzija**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

The formation of rods, tubes, or sections of objects by forcing plastic through a shaped orifice and without the use of heat.

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

A process in which the sole source of heat is the conversion of the drive energy through viscous resistance of the plastic mass in the extruder.

*Polymer Technology Dictionary, by Tony Whelan*

Extrusion performed without the addition of external heat. After the extruder has been warmed up, there is no external heat supplied to the machine as the heat necessary to plasticise the material comes from conversion of the drive energy.

### **Adiabatic flame temperature**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

The temperature of the products in a combustion process that takes place with no heat transfer and no energy exchange. This is the maximum possible temperature for these products.

### **Adiabatic flow**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

A flow in which it can be assumed that the rate of energy transfer both into and out of the control volume is effectively zero.

### **Adiabatic ionization**

#### **Adijabarska ionizacija**

*IUPAC . Category: Final, Mass Spectrometry Terms, 2013*

Removal of an electron from an atom, radical, or molecule in its lowest energy state, thus producing an [ion](#) in its lowest energy state.

### **Adiabatic modulus**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

The Young modulus of a material measured at high deformation rates, such that modulus-modifying heat flow cannot occur.

### **Adiabatic process**

#### **Adijabatski proces**

*Environmental Engineering Dictionary, edited by C. C. Lee*

(1) The process in which no heat is transferred between a system and its surroundings. (2) A process during which no heat is extracted from or added to a system.

*Extrusion Glossary of Terms, Polydynamics*

This adjective denotes a process in which no heat is added or removed. The term is used incorrectly to describe an extruder where the mechanical energy from the screw is sufficient to plastify the polymer and the barrel controller set-points are set so that little or no heating or cooling is required.

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

#### **Termodinamički proces u kojemu nema izmjene topline između sustava i okoline**

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

Any thermodynamic procedure that takes place in a system without the exchange of heat with the surroundings.

### **Adiabatic saturation**

#### **Adijabatsko zasićenje**

*Environmental Engineering Dictionary, edited by C. C. Lee*

A process in which an air or gas stream is saturated with water vapour, without adding or subtracting heat from the system.

### **Adiabatic vaporisation**

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

Vaporisation of a liquid with virtually no heat exchange between it and its surroundings.

### **Adiabatic wall**

#### **Adijabatska stijenka**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Granična ploha između dvaju sustava koja je nepropusna za toplinu.**

## **Adidas**

*Apparelsearch*

a German sports apparel manufacturer, part of the Adidas-Salomon corporation. Adidas was named after its founder, Adolf (Adi) Dassler, who started producing shoes in the 1920s in Herzogenaurach near Nuremberg. It registered as adidas AG on 18 August 1949. The company's clothing and shoe designs typically include three parallel stripes of the same color, and the same motif is incorporated into adidas' official logos.

*Wikipedia*

Ltd. AG (ISIN: DE0005003404) is a German sports apparel manufacturer and part of the Adidas Group, which consists of Reebok sportswear company, TaylorMade-adidas golf company, and Rockport. Besides sports footwear, the company also produces other products such as bags, shirts, and other sports and clothing related goods. The company is the largest sportswear manufacturer in Europe and the second largest sportswear manufacturer in the world.

## **Adipate**

### **Adipat**

*Polymer Technology Dictionary, by Tony Whelan*

The reaction product of adipic acid and an alcohol – an adipic acid ester. The alcohol may be linear or branched and/or mixed alcohols may be used. A wide variety of adipates are made for use as plasticisers for materials such as polyvinyl chloride.

## **Adipic acid**

*Answers.com*

A white crystalline dicarboxylic acid,  $C_6H_{10}O_4$ , that is derived from oxidation of various fats, slightly soluble in water and soluble in alcohol and acetone, and used especially in the manufacture of nylon and polyurethane foams.

*antron capet and fibres*

A base ingredient in the production of Type 6,6 nylon. Adipic acid has a chain of six carbon atoms. It is reacted with hexamethylene diamine, which also has six carbon atoms, to polymerize Type 6,6 nylon.

*Ca-bc.com/zip\_internacional/usedmach/education/*

1,4-butanedicarboxylic acid [ $COOH(CH_2)_4COOH$ ]. It is used in the polymerization reaction to form nylon 66 polymers and in the manufacture of polyurethane foams.

*Polymer Technology Dictionary, by Tony Whelan*

A linear carboxylic acid which is derived from cyclohexane by oxidation. This material has a melting point of  $153^{\circ}C$ , and may be represented as  $HOOC(CH_2)_4COOH$ . A precursor for PA66 and its copolymers, and also used to make plasticisers. See – Adipate.

*Staticworx*

A base ingredient in the production of Type 6,6 nylon. Adipic acid has a chain of six carbon atoms. It is reacted with hexamethylene diamine (also having six carbon atoms) to polymerize Type 6,6 nylon.

*Wikipedia*

Adipic acid is the organic compound with the formula  $(CH_2)_4(CO_2H)_2$ . From the industrial perspective, it is the most important dicarboxylic acid: About 2.5 billion kilograms of this



white crystalline powder are produced annually, mainly as a precursor for the production of nylon. Adipic acid otherwise rarely occurs in nature.

### **Adipose layer, Adipose tissue, Sebaceous tissue**

*blueupgrade.com/Es/Quality-Production/Glossary*

The underlying layer of a hide or skin, known as the "flesh". In the preparation of the skin for tanning, the adipose tissue is thoroughly removed by the fleshing operation in the beamhouse.  
*iultcs.org/leather\_terms/a.asp*

Form of connective tissue in whose cell fat is deposited and stored. More frequently found in the flesh layer of the hide or skin.

*Naldr.nal.usda.gov*

The third layer of a hide or skin, the "flesh." In the preparation of the skin for tanning, the adipose tissue is thoroughly removed by the fleshing operation in the beamhouse.

### **Adjective dyes**

*Geocities*

Adjective dyes are dyes that change color depending on the mordant. Most reactive dyes are also adjective dyes.

*Madderonline*

Adjective dyes, or mordant dyes, require some sort of substance, (usually a metal salt) to prevent the color from washing or light-bleaching out. Most natural dyes are adjective dyes, and do require the application of a mordant (the metal salt) solution to the fibers at some point in the dyeing process. Aluminum and iron salts were the most common traditional mordants, with copper, tin and chrome coming into use much later. In rural areas where these metals were not widely available, plants were also used as mordants, especially those that have a natural ability to extract such minerals from the earth, such as club moss. Most ancient and medieval dyers mordanted their yarns and fabrics before dyeing them. Alum and Iron were used as mordants in Egypt, India and Assyria from early times, as there are many alum deposits in the Mediterranean region. Medieval dyers used alum, copper and iron as mordants, and cream of tartar and common salt were used as to assist in the dyeing process.

*Texmachinery*

Colouring substances that must be applied with a mordant. The colours change in character with the type of mordant used.

### **Adjustable**

*vidi*

### **Flexible**

### **Adjustable back**

*Clothingdictionary.com*

The back of a garment, usually a bra, corset or bustier which has multiple settings to allow for individual sizing preferences. Typically, adjustments are made with hook-and-eye closures or lacing.

*.lingerie.com.au/?page=glossary*

The back has more than one set of eyelets for an adjustable fit.

*The A to Z Book of Menswear, by Richard Woolnough*

A strap on the back of a waistcoat for adjusting the fit.

### **Adjustable cuff**

*The A to Z Book of Menswear, by Richard Woolnough*

This cuff has two buttons spaced about 2,5 cm apart and equidistant from the edge of the cuff. It allows adjustment to the width of the cuff.

### **Adjustable shoulder straps**

*femimage.com/beautyinsight\_LingerieGlossary101.htm*

Straps located on bras, shapewear, chemises, slips and other undergarments that allow for shortening or lengthening that provide wearer with the desired fit.

### **Adjustable top feed**

*knitopedia.co.uk/browse/knit\_tech/Clothing\_tech/feed\_systems/*

It features three separate feed mechanisms (one above the presser foot and two below) each moving at the same or different rate of speed to produce a flat seam. The feed can be adjusted to stretch or gather the material. Applications: This feed system is used to ensure an even finish when joining three plies of fabric and is used for piping operations on sportswear, tracksuits, pyjamas, light weight jackets, cushions and upholstery.

*Texworld*

A top feed system with the presser foot in two sections: one of which holds the material in position during needle penetration whilst the other, with its teeth on the lower side, engages the upper ply to feed the material forward when the needle is raised. (sub Category of feed mechanisms(sewing))

### **Adjusted rating life**

**Modificirana trajnost, Preinačena trajnost**

*struna\_knj\_14\_strelementi\_04(1381).pdf – Foxit Reader*

**Nazivna trajnost pri pouzdanosti različitoj od 90%, za neuobičajena svojstva materijala i/ili u neuobičajenim radnim uvjetima.**

### **Adjusting ring**

**Prsten za prilagodbu, Regulacijska matica**

*struna\_knj\_14\_strelementi\_04(1381).pdf – Foxit Reader*

**Prsten za prilagodbu zračnosti između vanjskih i unutarnjih lamela tarne spojke.**

### **Administrative controls**

**Administrativne kontrole**

*ISACA® Glossary of Terms English - Slovenian*

The rules, procedures and practices dealing with operational effectiveness, efficiency and adherence to regulations and management policies.

### **Administrative order**

**Administrativni nalog**

*Environmental Engineering Dictionary, edited by C. C. Lee*

A legal document directing an individual, business or other entity to take corrective actions or refrain from an activity. It describes the violations or actions to be taken, and can be enforced in court. Such orders may be issued, for example, as a result of an administrative complaint, whereby the respondent is ordered to pay penalty for violations of a statute.

### **Admiralty cloth**

*gypsywearingvintage.com/fashionterms.htm*

Synonym for melton cloth used for Navy Uniforms.

*resil.com/c.htm*

A term used by British naval forces for the standard British Melton used for officers' uniforms and coats.

### **Admittance**

**Admitancija, Električna admitancija, Provodnost, Vodljivost; Prihvaćanje, Primanje, Pristup, Ulaz**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Vodljivost u krugu izmjenične struje u kojemu se nalaze induktivni, kapacitivni i omski otpor. Admitancija je jednaka recipročnoj vrijednosti električne impedancije. SIMBOL: Y**

**Admixture**

*vidi*

**Additive**

**Adras**

*Hand Book of Silk Technology, by Tammanna N. Sonwalkar*

A glossy union fabric, half silk and half cotton, usually made with narrow stripes, with a beetled finish, made in India and Central Asia

*resil.com/c.htm*

An union fabric containing silk and cotton, usually in equal quantities. It is glossy, has narrow stripes, and is made in a beetled finish

**Adsorb**

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

To undergo or cause to undergo a process in which a substance accumulates on the surface of a solid. In the air this is usually a monolayer of gas molecules.

**Adsorbate**

*carbideprocessors.com/pages/Machine-Coolant-Filtration-Glossary.html*

The material which is adsorbed; i.e., the gas, vapor, or liquid which adheres or is chemically attracted to the surface of the solid.

*Dataphysics.de*

the concentrated material on a surface or interface

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

(1) A substance, which, in molecular, atomic or ionic form, will condense on, penetrate into and be retained by another liquid or solid. (2) The cation or anion partitioned from an aqueous solution to a solid surface, in the process of sorption.

*Wikipedia.org*

In chemistry and surface science, an adsorbate is a substance adhered to a surface (the adsorbent). The quantity of adsorbate present on a surface depends on several factors including: adsorbent type, adsorbate type, adsorbate size, adsorbate concentration, temperature, pressure, etc.

**Adsorbed water**

*Dictionary of Ceramic Science and Engineering, By Ian McColm*

A water layer, one or more molecules thick, held on the surface of a solid molecular forces.

**Adsorbent**

*atlassupply.com/glazing-glossary.htm*

A highly porous solid with the ability to concentrate and hold gasses and vapors in contact with the solid. This includes moisture, as well as many other organic and inorganic molecules.

*carbideprocessors.com/pages/Machine-Coolant-Filtration-Glossary.html*

A material which adsorbs; i.e., the solid which attracts and holds on its surface the gas, vapor, or liquid. Also materials added to liquors to decolorize or purify by adsorbing the color of impurity. Fuller's earth, activated carbon, activated alumina, etc. are all adsorbents.

*Chem.ubc.ca*

A substance that is used to adsorb another substance onto its surface. The stationary phase in chromatography. In thin layer chromatography, the paper of the chromatographic plate is the adsorbent. In column chromatography, a substance such as silica gel is the adsorbent.

*chromatographyonline.findanalytichem.com/lcgc/article/*

Packing used in adsorption chromatography. Silica gel and alumina are the most frequently used adsorbents in high performance liquid chromatography (HPLC).

*Dataphysics.de*

the surface of a material, where a different material is being concentrated

*egreenideas.com/glossary.php?group=a*

Material that is capable of the binding and collection of substances or particles on its surface without chemically altering them.

*Environmental Engineering Dictionary, edited by C. C. Lee*

A material that has the ability to cause molecules of gases, liquids or solids to adhere to its internal surfaces, without changing the adsorbent physically or chemically. Example adsorbents include activated carbon, alumina, bauxite, bone char, decolourising carbon, Fuller's earth, magnesia, silica gel, and strontium sulphate (selective adsorbent).

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

Any solid or liquid, such as activated charcoal, activated alumina, silica, water and mercury, having the ability to attract and concentrate significant quantities of another substance on its surface and to be penetrated by this substance.

*Naftni rječnik – Perić*

Čvrsta tvar ili tekućina koja adsorbira druge tvari, na primjer aktivni ugljen ili silikagel, koji se rabe za uklanjanje tekućina iz plina postupkom adsorpcije; v. adsorber tower, adsorption.

*schools.look4.net.nz/science/chemistry/index/index\_html*

A substance that collects molecules of another substance on its surface. For example, gases that make water taste bad are strongly adsorbed on activated charcoal granules in water filters.

### **Adsorbent filter**

*Fluidlife*

a filter medium primarily intended to hold soluble and insoluble contaminants on its surface by molecular adhesion.

*pneumatic-source.com/resources/glossary/a.shtml*

Filter medium primarily intended to hold soluble and insoluble contaminants on its surface by molecular adhesion.

*Texacoursa*

A filter medium primarily intended to hold soluble and insoluble contaminants on its surface by molecular adhesion.

*Toolingu*

A filter used for trapping various sizes of particulate matter. Adsorbent filters consist of clay and chemically treated paper.

### **Adsorber**

**Adsorber**

*Environmental Engineering Dictionary, edited by C. C. Lee*

A control device or piece of equipment for carrying on the process of adsorption. The unit is usually a vessel or a pipe containing activated carbon or another adsorbent. Generally, it has a means of admitting and exhausting fluids, plus whatever other piping (connections) might be needed for the operation of the unit, including desorption, if involved.

### **Adsorption**

**Adsorpcija**

*atlassupply.com/glazing-glossary.htm*

The adhesion in an extremely thin layer of molecules (as of gases, solids, or liquids) to the surface of solid bodies or liquids with which they are in contact. Adsorption is the result of attractive forces that can be likened to tiny "magnetic" microelectric charges on the surface of the adsorbent and the adsorbed substance. Variables affecting capacity include polarity, temperature, molecular size, adsorbate concentration, and type of adsorbent.

*Bradyid.com*

The process of liquids being attracted to the surface of the fabric.

*Ca-bc.com/zip\_internacional/usedmach/education/*

The attraction of gases, liquids, or solids to surface areas of textile fibers, yarns, fabrics, or any material. (Also see ABSORPTION.)

*Chemistryglossary*

The adhesion of a chemical species onto the surface of particles. Adsorption is a different process from absorption, in which a substance diffuses into a liquid or solid to form a solution.

*chromatographyonline.findanalytichem.com/lcgc/article/pageID=9*

The process of retention in which the interactions between the solute and the surface of an adsorbent dominate. The forces can be strong forces (hydrogen bonds) or weak (van der Waals forces). For silica gel, the silanol group is the driving force for adsorption, and any solute functional group that can interact with this group can be retained on silica. The term *adsorption* places emphasis on the surface versus penetration or embedding in the stationary phase coated or bonded to a surface.

*Dataphysics.de*

is the enrichment or agglomeration of particles on a surface or interface

*Enviro-solution.com*

Adherence of a substance to a boundary surface or interface between two surfaces of liquids, gases or solids. Tendency of fibres to hold substances upon a surface without soaking into fibres i.e. dirt, dust, soot, sand.

*Environmental Engineering Dictionary, edited by C. C. Lee*

(1) A mass transfer process that involves removing the gaseous contaminant by adhering it to the surface of a solid. Adsorption can be classified as physical or chemical. In physical adsorption, a gas molecule adheres to the surface of the solid due to the imbalance of natural forces (electron distribution). In chemisorption, once the gas molecule adheres to the surface, it reacts chemically with it. The major distinction is that physical adsorption is readily reversible, while chemisorption is not. (2) A process by which a solid material is used to remove one or more components from liquid or gaseous stream, usually without a chemical reaction. The removal takes place through adherence to the surface. Typical adsorbents are activated carbon, molecular sieves, silica gel and activated alumina. (3) An advanced method of treating waste in which activated carbon removes organic matter from wastewater. (4) The adherence of gas molecules, ions, or molecules in solution to the surface of solids.

*epa.gov/OCEPAterms/aterms.html*

Removal of a pollutant from air or water by collecting the pollutant on the surface of a solid material; e.g., an advanced method of treating waste in which activated carbon removes organic matter from waste-water.

*etfinancial.com/solventgloss.htm*

Adsorption is a surface phenomenon that some products exhibit, whereby they form a physicochemical bond with substances. Not to be confused with absorption.

*fire.org.uk/glossary.htm*

The adherence of atoms, ions or molecules of a gas or liquid to the surface of another substance. Finely divided or microporous materials having a large active surface area are

strong adsorbents. Examples include activated carbon, activated alumina and silica gel.

*Fluidlife*

adhesion of the molecules of gases, liquids, or dissolved substances to a solid surface, resulting in relatively high concentration of the molecules at the place of contact

*Glossary of Rubber and Rubber-like Materials, ASTM publication, Philadelphia 1956*

The action of a body in condensing and holding gases, dyes or other substances. The action is usually considered to take place only at or near the surface. The power of adsorption is one of the characteristic properties of matter in the colloidal state and is associated with surface energy phenomena of colloidal dispersed particles.

*Hghouston.com*

The surface retention of solid, liquid, or gas molecules, atoms, or ions by a solid or liquid.

*Inda.org*

The attraction and adhesion of gaseous or liquid molecules to the surface of a solid.

The strength of the bond depends on the van der Waal forces between two molecules.

*Naftni rječnik – Perić*

Pojava da se na granici površina dviju faza (između čvrste tvari i tekućine, čvrste tvari i plina ili između dviju uzajamno netopljivih tekućina) nakuplja neka tvar u koncentraciji većoj nego što vlada u unutrašnjosti susjednih faza. Adsorpcija se odvija samo na površinskom sloju, za razliku od pojave apsorpcije gdje apsorbirana tvar prodire i homogeno se raspoređuje po čitavom volumenu druge tvari.

*Novasep.com*

The binding of molecules to a surface as a result of a chemical or physio-electric interaction between the membrane surface or the chromatographic resin and the molecule.

*Nptel.iitm.ac.in*

The adhesion of the molecules of gases, dissolved substances or liquids in more or less concentrated form, to the surfaces of solids or liquids with which they are in contact.

*REČNIK TRIBOLOŠKIH TERMINA , B. Ivković, Kragujevac 2012.*

Adhezija molekula gasova, tečnosti ili rastvorenih supstanci za površine čvrstih tela.

Posledica je visoka koncentracija molekula na kontaktnim površinama.

*Scalefighter.com*

The process in which a molecule becomes adsorbed onto a surface of another phase (particle). This is to be distinguished from absorption which is used when describing uptake into the bulk of a solid or liquid phase.

*Specialchem4coatings*

Not to be confused with absorption, adsorption is the build up of a molecule at a surface.

Adsorption generally occurs because different parts of a molecule have an affinity for the two different phases on either side of the interface.

### **Adsorption chromatography**

*Antoine.frostburg.edu*

A technique for separating or analyzing mixtures that contain at least one component that is preferentially adsorbed by the stationary phase as it moves over it.

*ASM materials engineering dictionary, by Joseph R. Davis*

Chromatography based on differing degrees of adsorption of sample compounds onto a polar stationary phase.

*chromatographyonline.findanalytichem.com/lcgc/article/*

One of the basic LC modes that relies upon adsorption to the surface of an active solid to effect the separation. Silica gel and alumina are the most frequently used normal-phase adsorbents, and molecules are retained by the interaction of their polar function groups with the surface functional groups; for example, silanols of silica. Carbon also is used as an adsorbent in a reversed-phase mode.

*composite.about.com/library/glossary/a/bldef-a177.htm*

The analytical separation of a chemical mixture (gas or liquid) by passing it over an adsorbent bed that adsorbs different compounds at different rates.

*Polymer science dictionary, by Mark. s.m. Alger, Google books*

The separation of different molecular species in a solute by adsorption at the top of a column packed with a solid stationary phase, followed by elution by a liquid phase which moves down the column with respect to the stationary phase in a counter-current manner. The method is sometimes used for the fractionation of synthetic polymers according to the molecular mass, the lower molecular mass species being more powerfully adsorbed, but is not very efficient for the purpose.

### **Adsorption column**

#### **Kolona za plinsko-adsorpcijsku kromatografiju.**

*Naftni rječnik – Perić*

Staklena cijev plinskog kromatografa (gas chromatograph) ispunjena ugljenom, silikagelom, zeolitima i polimerima koji adsorbiraju plin. Upotrebljava se za separaciju kisika, dušika i metana. Sinonim: gas/solid column.

### **Adsorption isobar**

#### **Adsorpcijska izobara**

*Environmental Engineering Dictionary, edited by C. C. Lee*

A plot showing adsorption against various parameters, such as temperature, while holding pressure constant.

### **Adsorption isotherm**

#### **Adsorpcijska izoterma**

*Environmental Engineering Dictionary, edited by C. C. Lee*

A plot used in evaluating the effectiveness of activated carbon treatment by showing the amount of impurity adsorbed versus the amount remaining. It is determined at a constant temperature by varying the amount of carbon used or the concentration of the impurity in contact with the carbon.

### **Adsorption on activated carbon**

*actechtextile.org/Textexpressions/Index.php?dir=&file...pdf*

This process is effective when carried out in conjunction with flocculation. The adsorption on activated carbon without pretreatment is impossible because the suspended solids rapidly clog the filter. This procedure is therefore only feasible in combination with flocculation–decantation treatment or a biological treatment. The combination permits a reduction of suspended solids and organic substances, as well as a slight reduction in the color but the cost of activated carbon is high.

*answers.com/topic/activated-carbon*

Adsorption on activated carbon is selective, favoring nonpolar over polar substances. Compared with other commercial adsorbents, activated carbon has a broad spectrum of adsorptive activity, excellent physical and chemical stability, and ease of production from readily available, frequently waste materials.

### **Adsorption polymerisation**

*Polymer science dictionary, by Mark. s.m. Alger, Google books*

A polymerisation brought about by adsorption of a monomer onto a catalytic surface, followed by a „zipping-up“ type of polymerisation of the adsorbed monomer.

### **Adsorption zone**

*Dictionary of Ceramic Science and Engineering, By Ian McColm*

The area on an adsorbent in which the concentration of an adsorbate in a fluid decreases from the influent concentration to the lowest detectable concentration.

### **Adsorptive filtration**

#### **Adsorpcijska filtracija**

*Environmental engineering*

Adsorptive filtration is a technique based on the coating of the filter medium with adsorbents, resulting in modified media that can act simultaneously as a filter and as an adsorbent (Zouboulis and Katsoyiannis, 2002). Numerous studies have demonstrated that adsorptive filtration is a promising technology for removal of inorganic and microbiological contaminants. While previous studies have demonstrated the ability to coat granular media by precipitation of metallic salts, this study applies nanoscale materials as coating materials.

[pneumatic-source.com/resources/glossary/a.shtml](http://pneumatic-source.com/resources/glossary/a.shtml)

the attraction to, and retention of particles in, a filter medium by electrostatic forces, or by molecular attraction between the particles and the medium.

*REČNIK TRIBOLOŠKIH TERMINA, B. Ivković, Kragujevac 2012.*

**Privlačenje i zadržavanje čestica u filteru dejstvom elektrostatičkih sila ili privlačenjem molekula čestica i filtera.**

*Texacoursa*

The attraction to, and retention of particles in, a filter medium by electrostatic forces, or by molecular attraction between the particles and the medium.

### **Adulterate**

*Dictionary of Ceramic Science and Engineering, By Ian McColm*

To debase by adding inferior material.

### **Adulterant**

*vidi*

### **Extender**

### **Adulteration**

#### **Kvarenje; Otežavanje**

*Dictionaryoftext00*

The adding of substitute fibers or foreign materials to textiles for gain; for instance, wool adulterated with cotton or silk adulterated by weighting.

[ebooksread.com/authors-eng/louis-harmuth/dictionary-of-textiles-hci/1-dictionary-of-textiles-hci.shtml](http://ebooksread.com/authors-eng/louis-harmuth/dictionary-of-textiles-hci/1-dictionary-of-textiles-hci.shtml)

The adding of substitute fibers or foreign materials to textiles for gain; for instance, wool adulterated with cotton or silk adulterated by weighting.

*Texmachinery*



The adulteration of substitute fibres or foreign materials to textiles, e.g. wool is sometimes adulterated with cotton. This should not be confused with blending or mixing, where the objective is to obtain increased service, improved appearance, etc.

*Textbooksonline*

Adulteration is defined as the process by which the quality or the nature of a given substance is reduced through the addition of a foreign or an inferior substance and the removal of a vital element.

### **Adulteration of fabrics**

*Chestofbooks*

Fabrics made of pure fiber, especially of wool, silk, or linen, are very expensive because of the cost of production. Consumers have demanded less expensive materials than formerly, therefore the manufacturers have found it necessary to reduce the cost of production by some one of several ways. A certain amount or kind of adulteration does not always affect the wearing quality of the fabric, but advantage has sometimes been taken of the buyer by the failure of the manufacturer to label the products honestly. Oftentimes, however, inferior stuffs are sold under the name and at the price of those of pure fiber. Consumers should become alert to the breaking down of this system of deception. They must learn the characteristics of the fibers, the method of adulteration, and ways and means of detecting the same. The constant improvements in the processes of manufacturing make it difficult, even for the expert, to determine whether materials are what is claimed for them. Consumers should learn to know the difference between staple fibers and cloths, both in appearance and the sensation produced by rubbing between the finger-tips. Staple cloths are those whose names, characteristics, and wearing qualities are generally known. To be able to recognize one well-known cloth, made from each of the four principal fibers, will greatly aid one in classification of other fabrics.

*Dry goods*

Woolens have been for years past largely adulterated with refuse fibers called "shoddy and mungo;" also known under the terms of "extracts" and "flocks." It is truly wonderful the manner and to the degree which this dust can be mixed with chemicals in order to give it sufficient tenacity for spinning. The practice is now more largely in vogue than ever, for there is hardly a yard of cheap cloth that does not contain it. Shoddy, as originally used, was merely the fluff or waste from the looms, but now consists of any kind of woolen rubbish, as old blankets, hose, and cast-off clothing pulled to pieces in a machine called the "devil." [See Shoddy] There is yet another kind of refuse called "extract," which is also employed in the manufacture of cheap goods. It consists of the wool obtained from the rags of mixed goods, that is, old rags which have a cotton, linen or silk warp. In order to separate the wool from the cotton or linen, the rags are immersed in sulphuric acid, which destroys the undesirable linen or cotton, but leaves the wool intact. To separate wool from silk the rags are given a bath in cold nitric acid which completely dissolves the silk but does not affect the wool.

Calico and low grades of muslin are often adulterated with size and china clay, the object being to give them increased weight and substance. Up to about thirty years ago the "sizing" of cotton goods was effected with a mixture of flour, paste and tallow, by which means the tenacity of the warp was increased, and the friction of weaving was lessened. To effect this, twenty per cent of size was used; but in 1862, when on account of the war our cotton famine began to be felt and the long-fibered cotton grew scarce, it was found necessary to give tenacity to the warp threads made of short fiber by using more "size." In this manner as much as from fifty to ninety per cent of size has got to be used, the greater part of it being china clay. Cheap calico and muslin are also largely impregnated with lime, and a cloud of dust will fly out of such fabrics when torn. Silks are also made heavier and stouter by the incorporation

of dye-stuffs used expressly for this purpose. These are termed "weighted" or "loaded" silks. [See Silk].

### **Advanced composite, High-performance composite**

*Automateddynamics.com*

Composite materials applicable to aerospace construction and other high end applications, and made by imbedding high-strength, high-modulus fibers within an essentially homogeneous matrix.

*Ca-bc.com/zip\_internacional/usedmach/education/*

Polymer, resin, or other matrix-material system in which reinforcement is accomplished via high-strength, high-modulus materials in continuous filament form or is discontinuous form such as staple fibers, fibrets, and in-situ dispersions. (Also see COMPOSITE.)

*composite.about.com/library/glossary/a/bldef-a180.htm*

High-structural-strength materials created by combining one or more stiff, high-strength reinforcing fibers with a compatible resin system. Advanced composites can be substituted for metals in many structural applications. Composite materials applicable to aerospace and automotive construction consist of a high-strength, high-modulus fiber system embedded within an essentially homogeneous matrix which can be fabricated from either thermoplastic or thermosetting resins.

*Plastics Materials and Processes, by Charles A. Harper, Google books*

Composite materials that are reinforced with continuous fibres having a modulus higher than that of fibreglass fibres. The term includes metal matrix and ceramic matrix composites, as well as polymeric composites that are reinforced with graphite, boron, ceramic and fibre structures of the like. An advanced composite is designed and constructed by varying the direction of the fibres purposely to optimally counteract the stresses that are expected on the final product during service.

*Whittington's dictionary of plastics, by James F. Carley, Lloyd R. Whittington*

Composites made up of advanced fibres and/or advanced resins and having one or more properties well exceeding those of epoxy-glass and polyester-glass laminates. Their cost, both for material and processing, are also usually higher, in some cases much higher.

### **Advanced fibres**

*Whittington's dictionary of plastics, by James F. Carley, Lloyd R. Whittington*

Any of a class of reinforcing fibres characterised by either very high strength and modulus or high operating temperature, beyond those of more familiar fibres, such as glass, nylon and polyester, that have been in use for decades. Examples are aramid, fibres of some metals, carbon, boron, silicon carbide and silicon nitride, and whiskers of metals and inorganics.

### **Advanced resin**

*Whittington's dictionary of plastics, by James F. Carley, Lloyd R. Whittington*

Any of a new multicalss of thermoplastics of various chemical natures, distinguished from the established and more common engineering plastics by one or more outstanding properties, such as higher strength or modulus, or serviceability at more than 200<sup>0</sup> C. These materials also command premium prices and some require special processing. Examples are polyimides, polyetheretherketone, liquid crystal polymers, polytetrafluorethylene and polybenzimidazole.

### **Advanced treatment, Tertiary treatment**

*egreenideas.com/glossary.php?group=a*

A level of wastewater treatment more stringent than secondary treatment; requires an 85% reduction in conventional pollutant concentration or a significant reduction in non-conventional pollutants.

*encyclopedia2.thefreedictionary.com/Sewage+treatment*

Tertiary treatment, or advanced treatment, removes specific residual substances, trace organic materials, nutrients, and other constituents that are not removed by biological processes. Most advanced wastewater treatment systems include denitrification and ammonia stripping, carbon adsorption of trace organics, and chemical precipitation. Evaporation, distillation, electro dialysis, ultrafiltration, reverse osmosis, freeze drying, freeze-thaw, floatation, and land application, with particular emphasis on the increased use of natural and constructed wetlands, are being studied and utilized as methods for advanced wastewater treatment to improve the quality of the treated discharge to reduce unwanted effects on the receiving environment.

*mwdoc.com/glossary.htm*

Additional treatment processes used to clean wastewater even further following primary and secondary treatment. Also known as tertiary treatment.

*nsc.org/ehc/glossary.html#f*

Any treatment of sewage that goes beyond the secondary or biological water treatment stage and includes the removal of nutrients such as phosphorus and nitrogen and a high percentage of suspended solids. (See primary, secondary treatment.)

*stats.oecd.org/glossary/detail.asp?ID=53*

Advanced treatment technology (waste water) refers to processes capable of reducing specific constituents in waste water not normally achieved by other treatment options. It covers all unit operations that are not considered to be mechanical or biological, for example, chemical coagulation, flocculation and precipitation, break-point chlorination, stripping, mixed-media filtration, micro-screening, selective ion exchange, activated carbon absorption, reverse osmosis, ultrafiltration and electroflotation. Advanced treatment processes may be used in conjunction with mechanical and biological treatment operations.

### **Advancing colours**

*Bennette.com*

Colors that give an illusion of coming forward, such as warm hues in which red-orange predominates. They give a stimulating sensation to the eye.

*nava.org/Flag Information/dictionary/*

In a dichromatic field, a three dimensional effect in which one color seems to be in front of another color. Optical scientists say that red advances before blue.

*Scenic art for the theatre, By Susan Crabtree, Peter Beudert, Google books*

An advancing colour is a high-intensity warm colour that will appear to advance, or lie in front of another colour.

### **Adverse environmental effect**

#### **Negativni utjecaj na okoliš**

*Environmental Engineering Dictionary, edited by C. C. Lee*

Any significant and widespread adverse effect, which may reasonably be anticipated, to wildlife, aquatic life, or other natural resources, including adverse impacts on populations of endangered or threatened species, or significant degradation of environment quality over broad areas.

### **Advertising tape, Weftless tape, Tying tape**

*mijnwoordenboek.nl/EN/theme/MG/DE/EN/W/5*

A material in strip form that consists of a number of closely set warp threads held together by an adhesive.

*Texworld*

A weftless narrow fabric consisting of a number of warp threads held together with an adhesive.

### **Aeneous**

*Phronistry word*

shining bronze colour

### **Aerate**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

(1) To expose to air or mix with air. (2) To mix with a gas, such as carbon dioxide.

### **Aerated lagoon, Aerated lagooning, Aerated pond**

*caemi glossary*

A biological waste water treatment method in which air (oxygen) fed into an aeration basin reduces the effluent load.

*Environmental Engineering Dictionary, edited by C. C. Lee*

(1) Bacterial stabilisation of wastewater in a natural or artificial wastewater treatment pond in which mechanical or diffused air aeration is used to supplement the oxygen supply. (2) A holding and/or treatment pond that speeds up the natural process of biological decomposition of organic waste by stimulating the growth and activity of bacteria that degrade organic waste.

*epa.gov/OCEPAterms/aterms.html*

A holding and/or treatment pond that speeds up the natural process of biological decomposition of organic waste by stimulating the growth and activity of bacteria that degrade organic waste.

*Iultcs.org*

A biological process for treating wastewater by sending it to a basin or lagoon that is aerated to ensure an oxygen supply sufficient for biological purification. A distinction is drawn between strict aerobic lagoons and facultative aerobic lagoons. In the first, all sedimentation is avoided by maintaining a high enough level of aeration. In the second, the oxygen input ensures biological activity but cannot keep all of the matter present suspended.

*Wikipedia*

An aerated lagoon or aerated basin is a holding and/or treatment pond provided with artificial aeration to promote the biological oxidation of wastewaters.[1][2][3] There are many other biological processes for treatment of wastewaters, for example activated sludge, trickling filters, rotating biological contactors and biofilters. They all have in common the use of oxygen (or air) and microbial action to biotreat the pollutants in wastewaters.

### **Aerated yarn**

#### **Prozračena pređa**

*HAND BOOK ON GLOSSARY OF TEXTILE TERMS, BUREAU OF INDIAN STANDARDS NEW DELHI 110 002, UDC 001.4/677 (021) ISBN 81-7061-009-5*

A special type of viscose yarn, in which is enclosed a small amount of air or some inert gas. It is also known as 'hollow filament', 'tubular yarn' or 'macaroni yarn'.

### **Aeration**

*carbideprocessors.com/pages/Machine-Coolant-Filtration-Glossary.html*

Sparging air or cascading liquid in a manner that the liquid will come in contact with air. Usually used when oxygen will cause desirable chemical or biological reactions in the liquid.

*Environmental Engineering Dictionary, edited by C. C. Lee*

(1) The bringing about of an intimate contact between air and water by methods including spraying water into the air over a collecting basin or causing water to flow over baffles. (2) The process of exposing bulk materials, such as compost, to air (or of charging a liquid with a gas or a mixture of gases). Forced aeration refers to the use of blowers in compost piles. (3) A process of supplying or introducing air/oxygen into a medium, which promotes biological degradation of organic matter in water. The process may be passive (as when waste is exposed to air), or active (as when a mixing or bubbling device introduces the air).

[epa.gov/OCEPAterms/aterms.html](http://epa.gov/OCEPAterms/aterms.html)

A process which promotes biological degradation of organic matter in water. The process may be passive (as when waste is exposed to air), or active (as when a mixing or bubbling device introduces the air).

[healsfang.com/infoleatherterms\\_a.html](http://healsfang.com/infoleatherterms_a.html)

Introduction of oxygen into water or effluent streams by bringing the water or effluent into intimate contact with air.

*Hghouston.com*

(1) Exposing to the action of air. (2) Causing air to bubble through. (3) Introducing air into a solution by spraying, stirring, or a similar method. (4) Supplying or infusing with air, as in sand or soil.

*Hosieryassociation.com*

A knitting operation that allows fabrics to breathe, often utilized in pantyhose for cotton crotch panels or cotton soles.

[leighspaints.co.uk/Glossary.aspx](http://leighspaints.co.uk/Glossary.aspx)

Air bubbles can be formed during stirring, shaking or application of mainly water based paints which can result in a bubbled dry film.

[machinerylubrication.com/Glossary](http://machinerylubrication.com/Glossary)

The state of air being suspended in a liquid such as a lubricant or hydraulic fluid.

*Polymer Technology Dictionary, by Tony Whelan*

Means that air or gas bubbles are entrained/accumulated in a liquid, for example in an hydraulic fluid. In this case the hydraulic components will operate erratically, because of the compressibility of the trapped air.

### **Aeration tank**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

1) A tank holding fluid that is circulated or sprayed and thus exposed to the atmosphere. (2) A tank designed to force air or gas through its fluid contents.

### **Aerator**

#### **Aerator**

*Environmental Engineering Dictionary, edited by C. C. Lee*

A mechanical device that provides turbulence at the air and liquid interface to increased dissolved oxygen level in wastewater.

### **Aerobic lagoon**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

A pond in which sewage that is raw or only partially treated is decomposed by aerobic bacteria.

### **Aerobic treatment, Aerobic decomposition**

*businessdictionary.com/definition/aerobic-treatment.html*

Treating sewage, spills, or waste, with oxygen dependent microorganisms that break down (biodegrade) the polluting substance into harmless compounds over time.

*comarchitect.org/webhelp/14\_5\_definition\_of\_terms.htm*

the removal of organic pollutants in wastewater by bacteria, requiring oxygen with water and carbon dioxide as the end results of the treatment process. Processes include trickling filtration, activated sludge, and rotating biological contactors

*consultwebs.com/legal\_glossaries/toxic\_torts/glossary.html*

Process by which microbes decompose complex organic compounds in the presence of oxygen and use the liberated energy for reproduction and growth. (Such processes include extended aeration, trickling filtration, and rotating biological contactors.)

*egreenideas.com/glossary.php?group=a*

Process by which microbes decompose complex organic compounds in the presence of oxygen and use the liberated energy for reproduction and growth.

*eionet.europa.eu/gemet/concept?langcode=en&cp=12599*

The introduction of air into sewage so as to provide aerobic biochemical stabilization during a detention period.

*Problematika zbrinjavanja I pročišćavanja otpadnih voda – zakonski propisi, K. Višić I sur. Tekstil 64/2015*

**Biokemijski proces u kojem se molekularni kisik koristi kao oksidans u redoks reakciji i pojavljuje se u reduciranom obliku u molekuli vode, kao krajnjem produktu metabolizma. Anorganske tvari se razgrađuju u aerobnim procesima pomoću aktivnog mulja, uz prisustvo kisika. Odabrani mikroorganizmi miješaju se s vodom u suspenziju, uz upuhivanje zraka. Bakterije razgrađuju organske spojeve, odvođe se u taložnik i talog se kasnije uklanja.**

### **Aerodynamic coefficient**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

A non-dimensional expression of aerodynamic pressure, force or moment, such as lift coefficient or drag coefficient, that indicates a feature of a distinct shape at a specified incidence to the airflow.

### **Aerodynamic diameter**

#### **Aerodinamički promjer**

*Environmental Engineering Dictionary, edited by C. C. Lee*

(1) The term used to describe particles with common inertial properties to avoid the complications associated with the effect of particle size, shape and physical density. (2) Aerodynamic diameter applies to the size of particles of aerosols. It is a diameter of a sphere of unit density, which behaves aerodynamically as the particle of the test substance. It is used to compare particles of different sizes and densities and to predict where in the respiratory tract such particles may be deposited. This term is used in contrast to measured or geometric diameter, which is representative of actual diameters, which in themselves cannot be related to deposition within the respiratory tract. (3) In air pollution, it is defined as the diameter of a sphere of a unit density

*epa.gov/apti/bces/module3/diameter/diameter.htm*

In air pollution control, it is necessary to use a particle size definition that directly relates to how the particle behaves in a fluid such as air. The term "aerodynamic diameter" has been developed by aerosol physicists in order to provide a simple means of categorizing the sizes of particles having different shapes and densities with a single dimension. The aerodynamic diameter is the diameter of a spherical particle having a density of 1 gm/cm<sup>3</sup> that has the same inertial properties [i.e. terminal settling velocity (discussed later)] in the gas as the particle of interest.

*greenfacts.org/glossary/abc/aerodynamic-diameter.htm*

Airborne particles have irregular shapes, and their aerodynamic behaviour is expressed in terms of the diameter of an idealised spherical particle known as aerodynamic diameter. Particles are sampled and described on the basis of their aerodynamic diameter, which is usually simply referred to as particle size. Particles having the same aerodynamic diameter may have different dimensions and shapes.

*monographs.iarc.fr/ENG/Monographs/vol81/mono81-8.pdf*

the diameter of a sphere with the density 1 (1 g/cm<sup>3</sup>) which sediments at the same rate as the particle in still or laminarly flowing air. This definition also applies for fibrous particles.

*omegaspec.com/kbase/ShowKbase.asp?Article=902*

The dynamics of particle movement in gases, describing the shape and density of dust particles at a specific velocity and their atmospheric interaction with moving objects.

*Wikipedia.org*

Aerodynamic diameter is a physical property of a particle in a viscous fluid such as air. In general, particles have irregular shapes with actual geometric diameters that are difficult to measure. Aerodynamic diameter is an expression of a particle's aerodynamic behavior as if it were a perfect sphere with unit-density and diameter equal to the aerodynamic diameter. Such a model has the same terminal settling velocity.

### **Aerodynamic drag**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

The force opposite motion encountered by a body moving relative to a fluid. This force is a function of the fluid density, the square of the fluid velocity, the planform area of the body, and the drag coefficient.

### **Aerodynamic lift**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

An upward force encountered by a body moving relative to a fluid. This force is a function of the fluid density, the square of the fluid velocity, the planform area of the body, and the drag coefficient.

### **Aerodynamic lubrication**

#### **Aerodinamično podmazivanje**

*struna\_knj\_14\_strelementi\_04(1381).pdf – Foxit Reader*

**Podmazivanje pri kojemu su površine potpuno odvojene slojem plina pod djelovanjem tlaka nastaloga zbog njihova relativnoga gibanja određenom brzinom i viskoznosti plina.**

### **Aerodynamics**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

(1) The study of gases in motion and the forces that affect this motion. (2) The study of the effect of air in motion on an object. This can involve either objects moving through air, such as aircraft or automobiles, or stationary objects, such as bridges or tall buildings.

*Environmental Engineering Dictionary, edited by C. C. Lee*

A branch of dynamics treats the motion of air and other gaseous fluids and deals with the forces acting on solids in motion relative to such fluids.

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Grana mehanike fluida koja proučava strujanje plinova i gibanje tijela kroz plinove**

## **Aeroelasticity**

*Texworld*

Descriptive of the phenomena or analyses combining aerodynamics and elastic behaviour, in relation to air-supported and tension membrane structures.

*Wikipedia*

Aeroelasticity is the science which studies the interaction among inertial, elastic, and aerodynamic forces. It was defined by Collar in 1947 as "the study of the mutual interaction that takes place within the triangle of the inertial, elastic, and aerodynamic forces acting on structural members exposed to an airstream, and the influence of this study on design."

## **Aerogel**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

The dispersion of a gas in a solid or liquid medium, such as foam, the reverse of an aerosol, where the medium is a gas and the dispersed material is particles of a solid or liquid.

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

A porous product obtained when alcogel is dried under supercritical conditions. It is a colloid that has a continuous solid phase containing dispersed gas.

*Whittington's Dictionary of Plastics, by James W. Carley*

A porous, foamlike network with very small „cells“, whose substance may be silica or a polymer or a carbonised polymer. Densities range from half of solid values to as low as 3 mg/cm<sup>3</sup>. Applications for these costly materials are still being explored.

## **Aerophane**

*Dictionaryoftext00*

Thin, solid colored silk gauze, used as millinery and dress trimming.

*Phrontistery*

thin crinkled semi-transparent fabric

*thedreamstress.com/research/the-great-historical-fashion-and-textile-glossary*

A fine, slightly crisp, silk gauze, sometimes with a slightly crinkled, crepe appearance, possibly from a silk worm that is now extinct or a type of ribbon embroidery, where wide, crisp silk strips (originally probably of aerophane) are used to create three dimensional ornamentation, OR any fine, light gauzy fabric. 1830s-50s (fabric),

## **Aerosol**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

(1) The suspension of very fine particles of a solid or droplets of a liquid in a gaseous medium. Fog, smoke and volcanic dust are naturally occurring examples of aerosols. (2) A liquid substance stored under pressure in a container, along with a propellant, usually a liquefied gas and released in the form of a fine spray or foam.

*Antoine.frostburg.edu*



A colloid in which solid particles or liquid droplets are suspended in a gas. Smoke is an example of a solid aerosol; fog is an example of a liquid aerosol.

*carpetbuyershandbook.com/carpet-glossary/glossary-a/*

A suspended liquid or solid particle in a gas (e.g., air). A fine aerial suspension of particles sufficiently small in size to confer some degree of stability from sedimentation, i.e., fog or smoke.

*Chemistryglossary*

a dispersion of a liquid in a gas or a solid in a gas.

*Enviro-solution.com*

An extremely fine mist or fog consisting of solids or liquid particles suspended in air. Also term used for products which mechanically produce a mist.

*Environmental Engineering Dictionary, edited by C. C. Lee*

(1) Small droplets or particles suspended in the atmosphere, typically containing sulphur. Aerosols are emitted naturally (e.g. in volcanic eruptions) and as the result of human activities (e.g. burning fossil fuels). There is no connection between particular aerosols and pressurised products also called aerosols. (2) A product that relies on a pressurised gas to propel substances out of a container. All consumer products, and most other aerosol products, now use propellants that do not deplete the ozone layer, such as hydrocarbons and compressed gases. (3) a suspension of liquid or solid particles in air or other gaseous environment.

*epa.gov/OCEPATERMS/ATERMS.HTML*

A finely divided material suspended in air or other gaseous environment.

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

A colloidal dispersion of solid or liquid particles in a gas to form a smoke or fog.

*Glossary of Paint and Coatings Terminology, M. Pavlič, Ljubljana 2002.*

Use of compressed gas to spray the product from its container.

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Čestice raspršene u Zemljinoj atmosferi koje smanjuju optičku prozirnost**

*Inda.org*

Small particles, solid, semi-solid or liquid suspended in the air. The diameter of the particles

may vary from 100 microns down to 0.02 microns. Examples are dust, smoke and fog.

*Pojmovnik, Ekspert trgovina – za sigurnost i vještačenje*

**U kemiji, aerosoli su čvrste ili tekuće čestice raspršene u plinu. Aerosol je suspenzija vrlo sitnih čestica u plinu (rizik od kontaminacije dišnih putova). Oblak je primjer aerosola. To su i magla, dim ili oblak prašine koji se diže pri istresanju tepiha.**

*Safetyglossary*

An Aerosol is a suspension of solid or liquid particles in a gas. Particles in suspension must, of course, be small, or they would settle out under the influence of gravity; typical diameters range from about 0.001 micrometres to about 100 micrometres, and the density of the suspended particles may range from extremely small values up to around 10 grams per cubic metre of gas.

*Ucalgary*

Colloidal dispersions of liquids or solids in a gas. There are aerosols of liquid droplets (e.g., fog, cloud, drizzle, mist, rain, spray) and aerosols of solid particles (e.g., fume and dust).

*Whittington's Dictionary of Plastics, by James W. Carley*

A suspension of liquid or solid particles in a gas, typically under pressure. In the packing industry, the term means self-contained sprayable product in which the propellant force is supplied by a compressed or liquified gas, e.g. isopentane.

*Wikipedia*

Technically, an aerosol is a suspension of fine solid particles or liquid droplets in a gas. Examples are smoke, oceanic haze, air pollution, smog and CS gas. In general conversation, "aerosol" usually refers to an aerosol spray can or the output of such a can. The word aerosol derives from the fact that matter "floating" in air is a suspension (a mixture in which solid or liquid or combined solid-liquid particles are suspended in a fluid). To differentiate suspensions from true solutions, the term sol evolved—originally meant to cover dispersions of tiny (sub-microscopic) particles in a liquid. With studies of dispersions in air, the term aerosol evolved and now embraces both liquid droplets, solid particles, and combinations of these. An aerosol may come from sources as various as a volcano or an aerosol can.

*Wiktionary*

A colloidal system in which the dispersed phase is composed of either solid or liquid particles and in which the dispersal medium is some gas, usually air.

### **Aerosol monitor**

#### **Mjerač aerosola**

*Environmental Engineering Dictionary, edited by C. C. Lee*

A direct-reading instrument that measures aerosols (suspended solid or liquid particles), e.g. dust, mist, fume, smoke, fog, spray (not a gas). Most of aerosol monitors use a light source and a light sensor that measures the amount of light scattered by the aerosol. Reads-out are in milligrams per cubic meter (mg/m<sup>3</sup>).

### **Aerostatic lubrication**

#### **Aerostatično podmazivanje**

*struna\_knj\_14\_strelementi\_04(1381).pdf – Foxit Reader*

**Podmazivanje pri kojemu su površine u relativnome gibanju ili u stanju mirovanja potpuno razdvojene dovođenjem plina izvana pod visokim tlakom.**

### **Aerostatics**

#### **Aerostatika**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Grana mehanike fluida koja se bavi tlakovima i ravnotežom sila u plinovima koji miruju.**

### **Aesthetic dress**

*Fashion-era*

Aesthetic dress was a protest against the contemporary fashion for bustles in various forms and restrictive corsets. In fashion history terms only a very small section of the community ever wore it initially, but it did spread to middle class intellectuals, to artistic and literary people. Aesthetic dress was made of wool or Liberty silk or velvet fabrics.

Aesthetic fashions were cut looser and was unstructured in the style of medieval or Renaissance garments with larger sleeves. The dress appeared loose compared with figure hugging fashion garments of the era. Loose waisted corset free women were considered to have loose morals and it did not help that many of the Aesthetic women were thought slightly Bohemian and beyond the normal social conventions and morals of the time.

*Probertencyclopedia*

Aesthetic dress was a fashion of the 1880s and 1890s consisting of mediaeval-like robes which were loose, unstructured and with little detail and few accessories or trimmings. The fashion was promoted as a more natural look for women in contrast to the artificial tiny waists and full bosoms of other fashions current at the time.

### **Aesthetics**

*Amefid Glossary of textile terms*

Refers to the appearance of the thread in the finished seam that can be affected by contrast stitching, color matching, the sheen of the thread, the size of the thread.

*Ca-bc.com/zip\_internacional/usedmach/education/*

In textiles, properties perceived by touch and sight, such as the hand, color, luster, drape, and texture of fabrics or garments.

*telfordsmith.com.au/glossary.asp?letter=F&page=5*

The sum total of the visual response to the beauty of an object. Elements of aesthetics may include: color, shape or particular features of the object.

*Zabin.com*

Refers to the appearance of the thread in the finished seam that can be affected by contrast stitching, color matching, the sheen of the thread, the size of the thread.

### **Aetzing**

*asicentral.com/asp/open/content/content.aspx?id=2376*

The process used to create schiffli laces. The base fabric is dissolved, leaving the threads that have been stitched together to form the lace.

*buygolfshirts.net/store/pc/viewContent.asp?idpage=27*

The process of eliminating the base fabric leaving only the threads remaining, resulting in lace.

*hirschinternational.com/ guide.ashx*

1) The breaking down or dissolving of a base fabric on which a lace pattern has been stitched, leaving only the stitched threads; 2) Lace processing; may be “wet aetze,” involving a caustic soda bath or “dry aetze”, involving heat.

### **Affinity**

*antron capet and fibres*

The tendency for two elements or substances to combine chemically. An example is the affinity of acid dyes for nylon fiber.

*brendan.com/glossary.html#f*

Affinity is a measure of the intrinsic binding strength of the ligand binding reaction. The intrinsic attractiveness of the binder for the ligand is typically expressed as the equilibrium constant ( $K_a$ ) of the reaction. The equilibrium constant  $K_a = \frac{[\text{Ligand-Binder}]}{[\text{Ligand}][\text{Binder}]}$ , where [ ] represents the molar concentration of the material at equilibrium.

*Ca-bc.com/zip\_internacional/usedmach/education/*

Chemical attraction; the tendency of two elements or substances to unite or combine, such as fiber and dyestuff.

*carpetbuyershandbook.com/carpet-glossary/glossary-a/*

Attractive force between substances or particles causing them to combine chemically. An example is the affinity of acid dyes for nylon fiber.

*Colour-experience*

The quantitative expression of substantivity. It is the difference between the chemical potential of the dye in its standard state in the fibre and the corresponding chemical potential in the dyebath. Note: Affinity is usually expressed in units of joules (or calories) per mole. Use of this term in a qualitative sense, synonymous with substantivity, is deprecated.

*composite.about.com/library/glossary/a/bldef-a187.htm*

The attraction or polar similarity between two materials such as adhesive and adherend.

*Environmental Engineering Dictionary, edited by C. C. Lee*

A chemical attraction or force that causes the atoms of certain elements or compounds to combine with atoms of another element or compound and remain in the combined state.

*HAND BOOK ON GLOSSARY OF TEXTILE TERMS, BUREAU OF INDIAN STANDARDS  
NEW DELHI 110 002, UDC 001.4/677 (021) ISBN 81-7061-009-5*

The quantitative expression of substantivity. It is the difference \*ween the chemical potential of the dye in its standard state in the fibre and the corresponding chemical potential in the dyebath.

*Ian J.McColm: Dictionary of Ceramic Science and Engineering, III Edition*

A measure of the tendency of a chemical reaction to take place, measured in terms of the free energy charge.

*Staticworx*

A chemical attraction between components that causes them to combine. An example is the affinity of acid dyes for nylon fiber.

### **Affinity chromatography**

*chromatographyonline.findanalytichem.com/lcgc/article*

A technique in which a biospecific adsorbent is prepared by coupling a specific ligand — such as an enzyme, antigen, or hormone — for the macromolecule of interest to a solid support (or carrier). This immobilized ligand will interact only with molecules that can selectively bind to it. Molecules that will not bind will be eluted unretained. The retained compound later can be released in a purified state. Affinity chromatography is normally practiced as an on–off separation technique.

*en.wikipedia.org/wiki/Preparative\_chromatography*

Affinity chromatography is based on selective non-covalent interaction between an analyte and specific molecules. It is very specific, but not very robust. It is often used in biochemistry in the purification of proteins bound to tags. These fusion proteins are labeled with compounds such as His-tags, biotin or antigens, which bind to the stationary phase specifically. After purification, some of these tags are usually removed and the pure protein is obtained. Affinity chromatography often utilizes a biomolecule's affinity for a metal (Zn, Cu, Fe, etc.). Columns are often manually prepared. Traditional affinity columns are used as a preparative step to flush out unwanted biomolecules. However, HPLC techniques exist that do utilize affinity chromatography properties. Immobilized Metal Affinity Chromatography (IMAC) is useful to separate aforementioned molecules based on the relative affinity for the metal (I.e. Dionex IMAC). Often these columns can be loaded with different metals to create a column with a targeted affinity.

*Novasep.com*

A technique in which a biospecific adsorbent is prepared by coupling a specific ligand (such as an protein, peptide or nickel) for the molecule of interest to a solid support. This immobilized ligand will interact only with molecules that can selectively bind to it. Molecules that will not bind elute unretained. The retained compound can later be released in a purified state.

*Odgovori na postavljena pitanja iz biologije, B.Bohaček*

Afinitetna kromatografija je učinkovita i generalno primjenjiva metoda za pročišćavanje skupina molekula od interesa. Ova tehnika se zasniva na visokom afinitetu pojedinih makromolekula za specifične kemijske skupine . Jedna od primjena afinitetne kromatografije je u izolaciji transkripcijskih faktora, proteina koji reguliraju ekspresiju vezujući se za specifičnu sekvencu na DNA. Mješavina proteina se propušta kroz kolonu koja sadrži specifičnu DNA sekvencu vezanu na matriks; proteini sa visokim afinitetom vezivanja na sekvencu će zaostati na koloni. Transkripcijski faktor će biti otpušten ukoliko se kolona ispere sa otopinom koja sadrži visoku koncentraciju soli. Općenito, afinitetnom kromatografijom je moguće izdvojiti protein koji prepoznaje grupu X, ukoliko se na kolonu kovalentno vezuje X ili njegov derivat. Dodavanjem mješavine proteina na tu kolonu, te zatim ispiranjem,

uklanjaju se proteini koji se nisu vezali, dok daljnjim ispiranjem uz dodavanje visoke koncentracije topivog X ili narušavanjem uvjeta vezivanja dobivamo protein od interesa. Afinitetna kromatografija je najučinkovitija kada je interakcija između proteina i molekule koju on prepoznaje visoko specifična.

*Polymer science dictionary, by Mark. s.m. Alger, Google books*

A chromatographic technique by which some biopolymers, especially proteins, may be isolated from even complex mixtures in a pure homogenous form in a single step.

### **Affinity elution chromatography**

#### **Ekstrakcijska kromatografija afinitetom**

*Polymer science dictionary, by Mark S.M.Alger*

A variation of affinity chromatography in which the polymer mixture is bound to an ion exchange resin packed in a column and the specific polymer to be separated is eluted by use of a solution of its own specific ligand. Especially useful for the isolation of enzymes.

### **Afgalaine ( Afghalaine)**

#### **Afgalin**

*HAND BOOK ON GLOSSARY OF TEXTILE TERMS, BUREAU OF INDIAN STANDARDS  
NEW DELHI 110 002, UDC 001.4/677 (021) ISBN 81-7061-009-5*

Originally, cloth made from Afghan wool, now the term covers plain--weave all-wool dress fabric containing:

(a) woollen warp with woollen weft, or

(b) worsted warp with woollen weft. In both types, the warp is usually S and 2 twist, arranged end and end, while the woollen weft is S twist.

### **Afghan**

*Apparel search*

a blanket or shawl of colored wool knitted or crocheted in strips or squares.

*Babylon.com*

An Afghan is a blanket, wrap, or shawl of colored wool, knitted or crocheted in geometric shapes. In terms of etymology, it is likely that the wraps or shawls that came to be called afghans were originally patterned after textiles from the Afghanistan region. According to the Oxford English Dictionary, afghan "wrap, shawl" dates from 1833.

*Miniknittingstuff*

A knitted or crochet rug or blanket.

*Wikipedia*

An Afghan is a blanket, wrap, or shawl of colored wool, knitted or crocheted in geometric shapes. In North American craft tradition, Afghans are handcrafted blankets of various sizes to be draped over sofas or large chairs for decoration, and sometimes used for napping or warmth. Afghan blankets are normally homemade or gifted items and are rarely sold commercially. There are many different designs and kinds of afghans and three main types: Mile-a-Minute afghans, join as you go afghans, and motif afghans. Mile-a-Minute afghans are usually (though not always) made in one piece and with a minimum of stitches. They are the simplest and easiest to make and are especially popular with beginners. Join as you go afghans are made up of many different pieces, often with one piece begun where the other leaves off. Motif afghans, such as the granny square, are comprised of many different small pieces, often called motifs, squares or blocks. These motifs or blocks may be all of the same design or all of different designs but are almost always the same size for ease of joining. This method of making afghans is preferred by many because of its portability and versatility of design.

## **Afghan burqa**

*Muslimanska odjeća*

Covers the entire body and has a rille over the face that the woman looks through. May have slits for the hands.

*Wikipedia*

A burqa (also transliterated burkha, burka or burqua from Arabic: برقع burqu‘) is an enveloping outer garment worn by women in some Islamic traditions for the purpose of cloaking the entire body. It is worn over the usual daily clothing (often a long dress or a shalwar kameez) and removed when the woman returns to the sanctuary of the household (see purdah).

## **Afghan carpets**

*Absoluteastronomy*

Afghan carpet, also known as Afghan rug, is a distinguished and well recognized hand-made rug that originates from Afghanistan. They intricate detailing mainly using designs from Turkmen people. The Turkmen are a Turkic people found primarily in the Central Asian states of Turkmenistan and Afghanistan and in northeastern Iran, tribes such as the Yomut, Ersari, Saryk, Salor, and Tekke. Many dyes such as vegetable dyes are used to give the rich colors. The hand-made rugs come in many patterns and colors, but the traditional and most common example of an Afghan carpet is the octagon-shaped elephant-foot (Bukhara) print. The rugs with this print are commonly red in color.

*Britannica*

thick, heavy floor covering handwoven by Turkmen craftsmen in Afghanistan and adjacent parts of Uzbekistan. While most of the weavers could be broadly labeled Ersari Turkmen, rugs are also woven by Chub Bash, Kızıl Ayaks, and other small groups. The carpets are mostly of medium size, with a repeating octagonal figure called a gul (Persian: “flower” or “rose”); various guls are associated with specific groups. The rugs almost always have a red field. The weavers also produce other trappings of the nomadic lifestyle, including tent bags and ceremonial pieces.

*Carpetencyclopedia*

handmade carpets from Afghanistan (Khal Mohammadi). These carpets are often made by the Turkomans in the northern and north-eastern parts of the country. The carpets have a warp made of wool, with elements of wool or cotton and red as the dominating colour. They are usually knotted with rough yarns and decorated with the eight-shaped Gül patterns. Older Afghan carpets are often sold as Ersari carpets.

*ebooksread.com/authors-eng/louis-harmuth/dictionary-of-textiles-hci/1-dictionary-of-textiles-hci.shtml*

Carpets made in Turkestan and Afghanistan of wool or goat's hair, the medium long loose pile is tied in Senna knot. The patterns are angular octagons, diamonds, sometimes stiff floral designs in red, brown, blue and white. Most of these carpets have a strong odor due to imperfect washing of the wool.

## **African fibre, African palm (Elaeis Guineensis)**

*Dictionaryoftext00*

Commercial name for a fiber yielded by the leaves of the palmetto in Algiers. Used for mattress stuffing.

*Interior Textiles: Design and Developments, edited by T Rowe*

The African palm is native to West Africa, occurring between Angola and Gambia. The world's largest producer and exporter of palm oil today is Malaysia, producing about 46% of the world's supply. Indonesia is the second largest, producing approximately 36% of th world's palm oil volume. Mature trees are single-stemmed, and grow to 20 m tall. The leaves

reach about 3 to 5 m in length. This kind of palm is grown for its cluster of fruit, which can weigh 40-50 kg. Each fruit contains a single seed or nut (the palm kernel), surrounded by a soft, oily pulp. The seeds are used for the production of soap and edible vegetable oil. The fibres are extracted from the seeds. The diameter of the elementary fibres is 14-28  $\mu\text{m}$ . Annually, each hectare of oil palm, which is harvested all year round, produces on average 10 tonnes of fruit, yielding 3000 kg of pericarp oil and 750 kg of seed kernels, yielding 250 kg of high-quality palm kernel oil, as well as 500 kg of kernel meat.

*resil.com/c.htm*

A leaf fibre obtained from the palmetto in Algeria. Used for stuffing mattresses.

### **After solvent resistance test**

*Trelleborg.com*

This test determines the hydrostatic pressure resistance on waterproof material after being exposed to naphtha. Specimens are covered by naphtha for 15 minutes. Then air-dried for five minutes. Specimen is then taken to the Mullen Hydrostatic tester to determine amount of pressure to force water through exposed fabric. Reported in psi.

### **Afterchroming, Afterchrome process**

*Colour glossary*

A method of dyeing in which the fibre is dyed with a mordant dye and afterwards treated with a chromium compound to form a dye - chromium complex within the fibre.

*ebooksread.com/authors-eng/louis-harmuth/dictionary-of-textiles-hci/1-dictionary-of-textiles-hci.shtml*

A process in dyeing, consisting of the application of a chrome mordant to a fabric already dyed.

*Glossary of Printing Terms, By Aatcc*

The process of treating printed or dyed fabrics in an acidic solution of chromium salt, usually sodium dichromate. The process may serve to oxidise vat or sulphur dyes, or may improve the fastness of direct or mordant dyes.

*HAND BOOK ON GLOSSARY OF TEXTILE TERMS, BUREAU OF INDIAN STANDARDS NEW DELHI 110 002, UDC 001.4/677 (021) ISBN 81-7061-009-5*

A method of dyeing in which the fibre is first dyed with the dye and then worked in a separate bath containing the chromium mordant or in the same bath by adding the mordant after exhausting the dye.

*resil.com/c.htm*

A dyeing process A dyeing process in which a chrome mordant is applied to a dyed fabric while it is wet, thus increasing the fastness of the dye

### **Aftercoppering**

*resil.com/c.htm*

A dyeing process The treatment of prints, usually those with direct or sulphur dyes, with copper salts solution.

### **Aftercure, Afterbake, Postcrosslinking, Postcure, Postcuring, Posthardening**

**Naknadno očvršćivanje, Naknadno stabiliziranje, Naknadno umreživanje; Stabiliziranje tkanine na gotovom proizvodu**

*argonics.com/glossary.html*

The period of cure after the product has been removed from the mold. In many cases, accelerated curing at elevated temperatures is utilized.

*Atozbook.info*

A type of durable press finish in which the finish is applied to the fabric by the mill, but the garment manufacturer completes the cure of the finish by applying heat, using an oven, or press, or both to the completed garment.

*composite.about.com/library/glossary/p/bldef-p4179.htm*

Additional elevated temperature cure usually without pressure to improve final properties or complete the cure. In certain resins, complete cure and ultimate mechanical properties are attained only by exposure of the cured resin to higher temperatures than those of curing.

*composites.ugent.be/home\_made\_composites/documentation/Glossary\_of\_textile\_terms\_for\_composites.pdf*

Additional **elevated-temperature** cure especially without pressure, to **improve final** properties and/or complete the cure, or **decrease** the percentage of **volatiles** in the compound.

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

A continuation of the process of curing after the cure has been carried to the desired degree and the source of heat removed – generally results in overcure and a product less resistant to ageing than properly cured products.

*elastoproxy.com/pages/support/rubber\_dictionary.aspx?LANG=EN-CA&letter=P*

Heat or radiation treatment, or both, to which a cured or partially cured thermosetting plastic or rubber composition is subjected to increase the state of cure or enhance the level of one or more properties.

*Encyclopedic Dictionary of Polymers, by Jan W. Gooch*

A treatment (normally involving heat) applied to an adhesive assembly following the initial cure, to modify specific properties. To expose an adhesive assembly to an additional cure, following the initial cure, for the purpose of modifying specific properties.

*Encyclopedic Dictionary of Polymers, by Jan W. Gooch*

Completing the cure of a thermosetting casting or molding after removal from the mold in which a partial cure has been accomplished. Post - curing usually involves heating, for example, in a circulating - air oven.

*epoxymethods.com/glossary.htm*

Heating the composite piece above 77°F during curing time to increase physical properties and quicken the curing cycle.

*Fibreset*

Additional elevated temperature cure, usually without pressure, to improve final properties and/or complete the cure. In certain resins, complete cure and ultimate mechanical properties are attained only by exposure of the cured resin to higher temperatures than those of curing.

*huntsman.com/pu/Media/PU\_Brochures\_cwp\_glossary.pdf*

A treatment applied to an adhesive assembly following the initial cure, to complete cure, or to modify specific properties

*Justintanks.com*

To cure by application of heat after the chemical exothermic reaction has subsided.

*kompnex.com/Glossary/index.htm*

Additional exposure to elevated temperature, often occurring without tooling or pressure, that improves mechanical properties.

*sava.in/textile-glossary-collection/F-finishing*

Describes a process where a fabric is impregnated with a resin, and the resin is cured after the garment is made.

*Specialchem4coatings*

Crosslinking reaction which occurs in cured coating due to the presence of an excess of a hardener. Can cause coating defects such as internal stress, decreasing adhesion durability and flexibility.

*Structural design of polymer composites, by John L. Clarke*

Additional elevated temperature cure, usually without pressure, to improve final properties or complete the cure, or both.



## *Struna – Hrvatsko strukovno nazivlje - Polimeri*

**Nastavak postupka umreživanja nakon uklanjanja izvora energije pri praoblikovanju kaučukovih smjesa.**

*Technical centre*

A type of durable press finish in which the finish is applied to the fabric by the mill, but the garment manufacturer completes the cure of the finish by applying heat, using an oven, or press, or both to the completed garment.

*telfordsmith.com.au/glossary.asp?letter=P&page=10*

Those additional operations to which a cured thermosetting plastic or rubber composition are subjected to enhance the level of one or more properties.

*textileglossary.com/terms/post-cure.html*

A type of durable press finish in which the finish is applied to the fabric by the mill, but the garment manufacturer completes the cure of the finish by applying heat, using an oven, or press, or both to the completed garment.

### **Afterflame**

*Handbook of Fire Resistant Textiles, edited by F. Selcen Kilinc*

The number of seconds (in tenths of seconds) during which there is a visible flame remaining on the fabric.

### **Afterflame time**

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

The length of time for which a material continues to flame, under specific test conditions, after the ignition source has been removed.

### **Afterglow**

*Ca-bc.com/zip\_internacional/usedmach/education/*

The flameless, glowing combustion of certain solid materials that occurs after the removal of an external source of ignition or after the cessation of combustion of the material.

*composite.about.com/library/glossary/a/bldef-a194.htm*

The glow in a material after removal of an external ignition source on after cessation, either natural or induced, of flaming.

*Encyclopedic Dictionary of Polymers, Volume 1 edited by Jan W. Gooch*

The flameless glowing combustion of certain solid materials that occurs after the removal of the external source of ignition, or after the cessation of the combustion of the material.

**HAND BOOK ON GLOSSARY OF TEXTILE TERMS, BUREAU OF INDIAN STANDARDS  
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Persistence of glow in a material under specified test conditions, after the removal of an external ignition source or after the cessation (natural or induced) of flaming of the material.

*Handbook of Fire Resistant Textiles, edited by F. Selcen Kilinc*

The number of seconds (in tenths of seconds) during which there is a visible glow remaining on the fabric. This result is reported, but is not part of most performance standards.

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

The glow in the material after removal from an external ignition source.

*Whittington's dictionary of plastics, by James F. Carley, Lloyd R. Whittington*

Persistence of visible glowing in a material being ignition-tested after the removal of the ignition source.

### **Afternoon dresses**

*Utexas*

VICTORIAN Afternoon dresses were ornamented, usually with layers of lace, bows, ruffles, delicate patterns and embroidery, and/or beading. Color was usually livelier on afternoon gowns; violets, pale greens, pinks, and so on were often seen, although neutrals were also used for the more reserved lady. Afternoon dresses were worn when entertaining company in one's own home and were called as such because usually women received company in the afternoons, before dinner and after lunch

**Aftershinkage**

*vidi*

**Post shrinkage**

**Aftertack**

**Naknadno lijepljenje, Zaostala lijepljivost**

*Encyclopedic Dictionary of Polymers, Volume 1 edited by Jan W. Gooch*

Film defect in which a coated surface, having once reached a tack-free stage, subsequently develops a sticky condition. The effect may be due to syneresis (i.e. expulsion of liquid from a gel). Also applies to printing inks.

*Glossary of Paint and Coatings Terminology, M. Pavlič, Ljubljana 2002.*

The property of a film to remain sticky after normal drying and curing.

**Aftertreating, Aftertreatment**

*Academic dictionary of textiles, by Vinay Kumar*

A chemical treatment to which a fabric is subjected immediately after being dyed, for increasing the fastness of the colour.

*Ca-bc.com/zip\_internacional/usedmach/education/*

Any treatment done after fabric production. In dyeing, it refers to treating dyed material in ways to improve properties; in nonwovens, it refers to finishing processes carried out after a web has been formed and bonded. Examples are embossing, creping, softening, printing, and dyeing.

*Construction*

treatments applied to carpet or fabric after it has been produced. In nonwoven carpet it is the finishing processes completed after the web is formed and bonded. Examples of after-treatments include creping, dyeing, embossing, printing and softening.

*Encyclopedic Dictionary of Polymers, Volume 1 edited by Jan W. Gooch*

Any treatment done after fabric production, in dyeing, it refers to treating dyed material in ways to improve properties, in nonwovens it refers to finishing processes carried out after the web has been formed and bonded. Examples are embossing, creping, softening, printing and dyeing.

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Usually a process to fix/remove/improve the colour/resin on previously treated material.

*Inda.org*

Chemical or mechanical processes carried out after a web has been formed and bonded to

enhance functional or aesthetic properties. Examples are embossing, crêping, softening,

printing and dyeing. The term also includes slitting to narrower widths and rewinding to

desired roll lengths.

*resil.com/c.htm*

A technique used to improve colourfastness A technique used to improve colourfastness and/or to produce normal shades by passing the dyed material through a chemical solution, e.g. Direct dyes are so treated.

### **After-welt, Afterwelt, Anti-ladder band, anti-run-back course, Garter band, Shadow welt**

*Hosieryassociation*

The area of knitted fabric just below the double turned fabric in stockings. It is usually made of the same yarn as the welt and is only one layer in thickness.

*resil.com/c.htm*

A band on a stocking, following the welt, in which there is a variation of quality, stitch, and/or yarn.

### **Agal**

*Hatsbapers*

modern Arab head-dress. Consists of a scarf wound around the head and held in place by its own fringes tucked into the roll.

*Wikipedia.org*

The agal is an accessory constructed of cord which is fastened around the Keffiyeh (an Arab headdress) to hold it in place. The agal is usually black in colour.

An agal is usually constructed of black cord wrapped tightly around a core of goat wool or bunched fabric.

### **Agar**

#### **Agar**

*Branka Andričić: PRIRODNI POLIMERNI MATERIJALI (Priručnik), Split 2009*

Agar je opći naziv za polisaharid dobiven iz odreenih vrsta crvenih algi (*Pterocladia, Gelidium, Gracilaria*), sastavljen od alternirajućih jedinica D- i L galaktopiranoze.

Naziv je izveden iz malajske riječi «agar-agar» što znači morska alga. Agar koji se danas koristi u različite svrhe je pročišćeni oblik koji se uglavnom sastoji od neutralne frakcije (agaroza). Upotrebljava se kao čvrsta podloga za mikrobiološke kulture u laboratorijima te u prehrambenoj industriji za proizvodnju konzervirane hrane i pekarskih proizvoda. Alge koje sadrže agar skupljaju se ručno u Španjolskoj, Portugalu, Maroku, Kaliforniji, Meksiku, Novom Zelandu, Južnoj Africi, Indiji, Čileu, a proizvodi se oko 10 000 t agara godišnje.

#### **Agaric**

*ebooksread.com/authors-eng/louis-harmuth/dictionary-of-textiles-hci/1-dictionary-of-textiles-hci.shtml*

A cotton fabric made with fine warp loop pile, formed on wires; used for dresses.

*resil.com/c.htm*

Cotton fabric with a loop construction, similar to towelling

#### **Agarose**

*chromatographyonline.findanalytichem.com/lcgc/article/*

High molecular weight polysaccharide used as a separation medium in biochromatography. It is used in bead form, often in gel-filtration chromatography, with aqueous mobile phases.

#### **Agbada**

### *Adireafricantextiles*

Agbada is the Yoruba name for a type of flowing wide sleeved robe, usually decorated with embroidery, which is worn throughout much of Nigeria by important men, such as kings and chiefs, and on ceremonial occasions like weddings and funerals. The Hausa name for the robes is riga. Although today they are often still made from hand-woven cloth, the painstaking and beautiful hand embroidery that was used in the past is very rarely seen. Fine old robes have become family heirlooms passed on from father to son and worn with pride at major celebrations. In the past prestige robes were traded over vast distances and similar or related garments are found throughout much of West Africa.

### *Fashion encyclopedia*

Loose-fitting robes are worn in many different regions of Africa, especially in West Africa. These robes reach to the ankles and are either open at the sides or stitched closed along the edges. In West Nigeria a loose-fitting robe is called an agbada. An agbada has sleeves that hang loosely over the shoulders and an opening at the front. A similar garment, called a gandoura or leppi, is worn in Cameroon, and the Hausa of Nigeria call their loose-fitting robes riga. The same garment is called a dansiki in West Africa. Most often made of cotton, agbada and other robes are typically highly patterned. These patterns may be woven into, dyed, painted, or appliquéd onto the robe. Men wear the agbada alone with trousers or as a type of coat over a shirt. As Africans have had increased contact with other cultures, traditional methods of producing cloth have declined, and many modern agbada are made from imported cloth and worn with Western pants. A related garment, called the dashiki, became quite popular in the West during the rise of the Civil Rights movement in the 1960s and 1970s, which saw African Americans protesting to secure their rights. Wearing a dashiki was a way of making a political statement about the value of African heritage.

### **Age hardening**

#### **Očvrščivanje starenjem, Očvrščivanje dozrijevanjem, Toplinsko očvrščivanje**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

A heat-treating process designed to produce a uniform dispersion of a fine, hard coherent precipitate in a softer, more ductile matrix.

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Toplinski postupak u kojemu se tijekom raspada čvrste otopine poboljšavaju mehanička svojstva slitine.**

### **Age resistance, Ageing resistance, Resistance to weathering, Weather resistance.**

#### **Weathering resistance**

#### **Otpornost na starenje, Postojanost na starenje**

*combatindex.com/mil\_docs/pdf/hdbk/0600/MIL-HDBK-695C.pdf*

Resistance to deterioration in storage by environmental factors, such as heat, light and ozone.

*Elastoproixy.com*

The resistance to deterioration by oxygen, heat, light, and ozone or combinations thereof during storage or use.

*Encyclopedic Dictionary of Polymers, Volume 1 edited by Jan W. Gooch*

The ability of a material, paint film, or the like to withstand effects of wind, rain, sun, etc., and retain its appearance and integrity.

*Glossary of Paint and Coatings Terminology, M. Pavlič, Ljubljana 2002.*

Resistance exhibited by the coating film towards degradation caused by weather (sun, rain, etc.).

*građevinarstvo \_ Struna \_ Hrvatsko strukovno nazivlje.html*

**Otpornost geosintetika na dugotrajno izlaganje svjetlosti, vlazi i temperaturi. Otpornost na starenje je važna za provjeru osjetljivosti proizvoda na uvjete skladištenja, uvjete okoline u izvedbi te za procjenu gubitka svojstava u vremenu.**

*Resil*

Ability of a material to resist degradation of its properties when exposed to climatic conditions.

### **Age softening**

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

The spontaneous decrease in strength and hardness that takes place at room temperature in certain strain hardened alloys.

### **Ageing, Aging, Maturing, Maturation**

**Dozrijevanje, Sazrijevanje; Odležavanje; Starenje**

*vidi*

**Weathering**

*Ca-bc.com/zip\_internacional/usedmach/education/*

1. Deterioration of textile or other materials caused by gradual oxidation during storage and/or exposure to light. 2. The oxidation stage of alkali-cellulose in the manufacture of viscose rayon from bleached wood pulp. 3. Originally, a process in which printed fabric was exposed to a hot, moist atmosphere. Presently, the term is applied to the treatment of printed fabric in moist steam in the absence of air. Ageing is also used for the development of certain colors in dyeing, e.g., aniline black.

*Chemicalfabricsandfilm*

The effect on materials of exposure to an environment for an interval of time.

*Elastoproxy.com*

a) An irreversible change in material properties after exposure to an environment for an interval of time. b) Exposing materials to a specified environment for an interval of time.

*Elastotechsouthwest*

The term "aging" is applied to the physical and chemical changes that take place in a given elastomer over a period of time, including both storage time and service time. The changes generally contribute to deterioration, which affects the useful properties of the elastomer. The aging process and its effects can be minimized by both careful selection of the compound used, and the addition of age inhibitors. Well-planned storage helps to prevent exposure to common harmful elements such as heat, sunlight, ozone, oxygen, moisture and radiation. While natural aging may cover months or years, careful formulation for maximum life under normal storage and operating conditions through the development of many tests that accelerate the natural aging process give the data necessary for this formulation.

*Encyclopedic Dictionary of Polymers, Volume 1, edited by Jan W. Gooch*

(1) Deterioration of textile or other materials caused by gradual oxidation during storage and/or exposure to light. (2) The oxidation stage of alkali-cellulose in the manufacture of viscose rayon from bleached wood pulp. (3) Originally, a process in which printed fabric was exposed to a hot, moist atmosphere. Presently, the term is applied to the treatment of printed fabrics in moist steam in the absence of air. Ageing is also used for the development of certain colours in dyeing, e.g. aniline black. (4) The process or the results of, exposure of plastics to natural or artificial environmental conditions for a prolonged period of time.

*Glossary of Paint and Coatings Terminology, M. Pavlič, Ljubljana 2002.*

Irreversible changes in the properties of a film which occur with the passage of time.

*Hrvatsko nazivlje polimerstva, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Nepovratni kemijski i fizički procesi u materijalu koji nastaju protokom vremena.**

*Inda.org*

Process in which products are exposed to environmental conditions, that stimulate real use or accelerated use, for the purpose of determining their effect on the functional and aesthetic properties of the products.

*Indianleatherportal*

The process by which certain types of leather are at some stage of manufacture allowed to lie in piles to "age".

*Mijnwoordenboek*

(1)Originally,a process in which printed fabric was exposed to a hot,moist atmosphere.At the present time,the term is almost exclusively applied to the treatment of printed fabric in moist steam in the absence or air.Ageing is also used for the development of certain colours in dyeing,for example,aniline black.(2)The slow oxidation of alkali-cellulose as a stage in the manufacture of viscose rayon from bleached wood-pulp.The purpose of the slow oxidation is to produce a controlled reduction in the chain-length of the cellulose molecule.(3)The deterioration of rubber and plastics coatings and proofings and of some lubricants on textiles,caused by gradual oxidation on storage and/or exposure to light.(4)The oxidation by exposure to air of drying-oil sizes and finishes,e.g.,in the production of oiled silk and oilskins and in Boyeux sizing.

*Polymer science dictionary, by Mark. s.m. Alger, Google books*

The long-term deleterious change in the properties of a polymer composition during its service life. Usually due to changes of the chemical structure of the polymer (i.e. degradation) initiated by any of the usual degradation agencies – heat, ultraviolet light, chemical attack, etc., or a combination of agencies.

*resil.com/c.htm*

Progressive change with time in the structure and properties of polymers, including wool fibres. 1. IN POLYMERS. Progressive change with time in the structure and properties of polymers, including wool fibres.

2. IN PRINTING. Fixation of printed colour by means of heat or steam. Originally induced by the action of air, sunlight or dew; this process gradually came to be carried out in a Rapid ager or by hot air or in a steam cabinet.

3. IN THE PRODUCTION OF VISCOSE. The oxidative depolymerisation of alkali cellulose in order to produce a controlled decrease in the chain length of the cellulose. The term is sometimes, although incorrectly, used to describe the ripening of viscose.

4. IN DRYING-OIL SIZES AND FINISHES. The oxidation by exposure to air of drying-oil sizes and finishes. 5. IN RUBBER, PLASTIC COATINGS, PROOFINGS AND LUBRICANTS. The deterioration of rubber and plastic coatings and proofings and of some lubricants on textiles, caused by gradual oxidation on storage and/or exposure to light.

*textilesindepth.com/index.php?page=synthetic-fibers-manufacturing-process*

The alkali cellulose is aged under controlled conditions of time and C) in order to depolymerize the<sup>o</sup>temperature (between 18 and 30 cellulose to the desired degree of polymerization. In this step the average molecular weight of the original pulp is reduced by a factor of two to three. Reduction of the cellulose is done to get a viscose solution of right viscosity and cellulose concentration.

### **Ageing in testing**

*resil.com/c.htm*

Storage of a material under defined conditions, to determine by subsequent tests the effect of these conditions on the properties of the material. The conditions may be chosen to accelerate any natural changes that may occur

**Ageing resistance**

*vidi*

**Age resistance**

## Agent

### Posrednik

*Englesko-ingleski glosar poslovnih termina, finansija i nekretnina, T. Popović*

Somebody appointed to act on behalf of another person (known as the principal). The amount of authority to deal that the agent has is subject to agreement between the principal and the agent. However, unless told otherwise, third parties can assume the agent has full powers to deal.

## Ager, Ageing oven, Steamer

*Ca-bc.com/zip\_internacional/usedmach/education/*

A steam chamber used for ageing printed or padded material.

*Efashion*

A large container in which dyed or printed fabric is treated in a moist steam atmosphere in the absence of air. This process helps to develop and fix the dyestuff on the fibre

*Glossary of Printing Terms, By Aatcc*

Any of a wide variety of machines used in ageing, for either batch or continuous processing.

The design must be such that open-width fabrics can be exposed to a saturated steam atmosphere at atmospheric pressure for several minutes by adjusting the holding capacity at desired speeds for continuous designs. Variable speed drives are also desirable for continuous operation.

*Minwoordenboek*

a heating chamber used to produce ageing effects

## Agglomerate, Agglomeration

### Aglomerat

*ASM materials engineering dictionary, by Joseph R. Davis*

The clustering together of a few or many particles, whiskers, or fibres, or a combination thereof, into a larger solid mass.

*Ca-bc.com/zip\_internacional/usedmach/education/*

A cluster of particles or fibers.

*composite.about.com/library/glossary/a/bldef-a203.htm*

A cluster of individual particles in which the particles are held together by surface forces. Spaces between the particles are filled with air.

*Dataphysics.de*

spatial collection of particles, that are chemical or mechanical not bonded

*Environmental Engineering Dictionary, edited by C. C. Lee*

(1) The process by which precipitation particles grow larger by collision or contact with cloud particles or other precipitation particles. (2) The coalescence of dispersed suspended matter into larger flocks or particles which settle more rapidly. (3) The clustering of disparate elements.

*FKIT Formulacijsko inženjertvo, Površine i međupovršine 2013/2014*

**Primarne čestice i/ili agregati (nakupine) nisu permanentno i čvrsto povezani zajedno ali se dodiruju npr. rubovima ili kutevima; njihova površina ne razlikuje se značajno od sume površina primarnih čestica.**

*Glossary of Paint and Coatings Terminology, M. Pavlič, Ljubljana 2002.*

Small particles of pigments gathering together and forming a larger mass.

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

(1) An association of individual crystallites in a powder within which the interfacial area is small and the total binding forces are weak, so that they can be dispersed in suspension by chemical or physical means. (2) A confused mass.

*machinerylubrication.com/Glossary*

The potential of the system for particle attraction and adhesion.

*Polymer Technology Dictionary, by Tony Whelan*

An association of primary particles which can be ruptured if sufficient shear is applied. Often means pigment agglomerate.

*silicates.com/leading-glossary.asp*

A technique that combines small or powdered materials into larger particles or granules. It usually employs some type of liquid binder, such as a silicate. Heating is sometimes associated with this process.

### **Agglutination**

#### **Agglutinacija**

*Environmental Engineering Dictionary, edited by C. C. Lee*

The process of uniting solid particles coated with a thin layer of adhesive material or of arresting solid particles by impact on a surface coated with an adhesive.

### **Aggregate, Gathering**

#### **Nakupina, Masa, Skup, Skupina; Agregat, Stroj koji pokreće drugi stroj**

*ASM materials engineering dictionary, by Joseph R. Davis*

A dense mass of particles held together by strong intermolecular or atomic cohesive forces.

*Dataphysics.de*

spatial collection of particles; aggregates are distinguished from agglomerates by the increased difficulty in separation

*FKIT Formulacijsko inženjerstvo, Površine i međupovršine 2013/2014*

**Primarne čestice povezane su licem-prema-licu: njihova je površina manja od sume površina primarnih čestica, čvrsto povezane čestice.**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Tijelo sastavljeno od većega broja sraštenih čestica.**

*oldnc.3dn.ru/Docs/Harper.C.A.Plastics\_Materials\_and\_Proc-s.pdf*

Aggregate is a hard, coarse material, usually of mineral origin, that is used with an epoxy binder (or other resin) to construct plastic tooling. Aggregate is also used as filler in resinous flooring or as a surface medium for architectural structures. An example of an aggregate in this type of application is crushed stone.

*Wiktionary.org*

(1) A mass, assemblage, or sum of particulars; something consisting of elements but considered as a whole. (2) A mass formed by the union of homogeneous particles; – in distinction from a compound, formed by the union of heterogeneous particles. (3) Solid particles of low aspect ratio added to a composite material, as distinguished from the matrix and any fibers or reinforcements, especially the gravel and sand added to concrete. (technical)

### **Aggregate stability**

*Specialchem4coatings*

Ability to resist to various changes without flocculation and coagulation. This stability can be improved by using emulsifiers or dispersing agents which create repulsion forces.

### **Aggregation**

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

An irreversible physical process in which initially dispersed basic units, such as particles, stick together, to form characteristic structures with relatively strong bonds, whose size increases with time.



## **Agile manufacturing**

*agecon.ag.ohio-state.edu/class/AEDE601/glossary/glossa.htm*

Agile manufacturing, aimed at quick turnaround of small lots at reasonable costs, is based on using science and engineering to leverage the impact of a person's decision-making capabilities on the success of the enterprise. Agile manufacturing enterprises have been characterized as bringing out new products quickly, designing products to facilitate their evolution in response to meet the changing needs of users, and as having diffused authority to facilitate information flow among manufacturing, engineering, marketing, purchasing, finance, sales, quality assurance, and research and development departments. Proponents of agile manufacturing emphasize its requirement for close working relationships between suppliers, manufacturers, and customers as well as its capability for efficient productivity without dramatically affecting processing costs.

*rockfordconsulting.com/agile-manufacturing.htm*

Agile Manufacturing is an operational strategy focused on inducing velocity and flexibility in a make-to-order or configure-to-order production process with minimal changeover time and interruptions. Agile Manufacturing products compete directly with standard products, providing a customer with configurable opportunity to specialize a product.

*Wikipedia.org*

Agile manufacturing is a term applied to an organization that has created the processes, tools, and training to enable it to respond quickly to customer needs and market changes while still controlling costs and quality. An enabling factor in becoming an agile manufacturer has been the development of manufacturing support technology that allows the marketers, the designers and the production personnel to share a common database of parts and products, to share data on production capacities and problems — particularly where small initial problems may have larger downstream effects. It is a general proposition of manufacturing that the cost of correcting quality issues increases as the problem moves downstream, so that it is cheaper to correct quality problems at the earliest possible point in the process. Agile manufacturing is seen as the next step after LEAN in the evolution of production methodical. The key difference between the two is like between a thin and an athletic person, agile being the latter. One can be neither, one or both. In manufacturing theory being both is often referred to as leagile. According to Martin Christopher, when companies have to decide what to be, they have to look at the Customer Order Cycle (the time the customers are willing to wait) and the leadtime for getting supplies. If the supplier has a short lead time, lean production is possible. If the customer order cycle is short, agile production is beneficial.

*wwd.com/fashion-resources/fashion-dictionary/#glossary-a*

Apparel manufacturing that utilizes a modular production system. In modular production workers are organized into teams that work together to produce an entire garment. In contrast to the bundle system, in which one worker performs an assembly task, then bundles the materials together and passes them to another worker who does another task, the modular system is more efficient and flexible.

## **Agilon**

*Dan River*

A stretch yarn process that draws filament fibers over a hot knife edge to impart crimp and curl. Any thermoplastic yarn such as nylon or polyester may be used.

## **Agitate**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

To move or shake the material vigorously, especially so as to mix it with another material.

*Ca-bc.com/zip\_internacional/usedmach/education/*

To stir or to mix, as in the case of a dye bath or solution.

*outoutdamnsport.com/glossary.htm*

To move with rapid or aggressive brush action in order to distribute uniformly is called agitation.

### **Agitation**

*Encyclopedic Dictionary of Polymers, Volume 1 edited by Jan W. Gooch*

Process of mixing or stirring to achieve homogeneity, but not necessarily dispersion.

**Agitator**

*vidi*

**Mixer**

### **Aglet or Aiglet**

*Applesearch*

the little plastic or metal cladding on the end of shoelaces that keeps the twine from unraveling. The word comes from the latin word acus which means needle. In times past, aglets were usually made of metal though some were glass or stone.

*Geocities.com*

metal tag of a lace formerly called point, intended primarily to make it easier to thread through the eyelet-holes, but afterwards also as an ornament to the pendent ends; ornament of gold or silver tag or pendant attached to a fringe; extended to any metallic stud, plate, or spangle worn on a dress.

*Onthefly*

A metal or plastic tag at the end of a shoelace. The aglet makes lacing easier and it protects the lace from unraveling. Historically, the aglet took a more ornamental form than it does today.

*Shoesmitten.com*

The plastic sheath at the end of a shoelace that makes the lace easier to thread through the eyelet holes of the shoe.

*Wikipedia*

An aglet or aiglet is a small plastic or metal sheath typically found on the ends of shoelaces, cords and drawstrings. Aglets keep the fibers from unraveling, and their firmness and narrow profile make them easier to hold and feed through the eyelets, lugs or other lacing guides of the lace or cord.

### **Agneline**

*All about fabrics*

A black woollen fabric with a very long nap. It is coarse and heavy. When stretched the fibres tighten and become water resistant

*ebooksread.com/authors-eng/louis-harmuth/dictionary-of-textiles-hci/1-dictionary-of-textiles-hci.shtml*

Coarse, black, stout woolen, made with a long nap, thoroughly fulled to shed water; used by the poorer classes in Europe for winter clothing.

*Textile dictionary*

Weave: Plain

Characteristics: A black woolen fabric with a very long nap. It is coarse and heavy. When stretched the fibres tighten and become water resistant.

### **Agra gauze**

*Dry goods*

A cobwebby fabric woven of gossamer silk threads. It is transparent as veiling, light as air, yet firm and strong. Its consistency may be realized from the fact that a piece four yards long and fourty-four inches wide, can be enclosed in the palm of the hand.

***Global Silk Industry\_ A Complete Source Book - R.k.datta - Google Books.html***

### **Fine, plain-weave silk gauze from India**

*resil.com/c.htm*

Also called Agra gauze. Plain weave, open-sett, silk fabric having a gauze-like appearance that receives a stiff finish. Also called Agra gauze. Plain weave, open-sett, silk fabric having a gauze-like appearance that receives a stiff finish.

### **Agras**

*Naldr.nal-usda.gov*

Well-cleaned dry-cured hides of good leather substance, the flesh side of which is yellow in color.

### **Agrotexiles, Agrotech, Shade cloth**

*Fibre2fashion*

A textile fabric has a long history of application in agriculture. The word “Agrotexiles” now is used to classify the woven, nonwoven and knitted fabrics applied for agricultural & horticultural uses covering livestock protection, shading, weed and insect control, and extension of the growing season. Agrotexiles help to keep sufficient soil humidity and increase the soil temperature.

*mantrasurat.org/newsite/subpage.php?subid=31*

Textiles used in Agriculture are termed as agro textiles. The essential properties required for agrotech are strength, elongation, stiffness, and bio-degradation, resistance to toxic environment. All these properties help in the growth and harvesting of crops. Textiles find its application in agriculture right from sowing to harvesting. An important application of textiles in agriculture is in protection against extreme climatic conditions. There are different forms of agro textiles available, like nets, woven, non-wovens, knitted, novel, and coated etc. Areas of applications are agriculture, horticulture, protective textiles and landscaping, ground covers, wind-break screens, frost protection covers, hail netting, insect screens, silage protection, ventilation screens, shading and reflection screens, bind netting, etc. Examples for agrotech products are agro bags, bale wrap nets, baler twine, bind netting, crop covers, fish linings, fishing nets, frost protection covers, fruit nets, ground matting, hail netting, insect screens, mulch mats, nets for crop protection, non-woven crop cover. Other agrotech applications are: plant nets, shade fabrics, shading and reflection screens, silage protection, soil covers, ventilation screens, weed control fabric, wind break screens, windscreens, woven crop cover. Many of these products are coated and laminated.

*Supereco*

Agrotexiles are fabrics (woven, unwoven or knitted) used in agriculture, horticulture, forestry and fishing. They can include fishnets, shades, mulch mats, thermal screens and crop covers. Common uses for agrotexiles are protecting livestock, maintaining soil humidity and temperature, eliminating the impact of pests and general shading. Agrotexiles are made from a variety of different fibers, both natural and synthetic. Polyolefin is perhaps the most commonly used synthetic, though nylon and polyester are similarly practical. Natural fibers, such as jute or wool, can also be used, and have the added benefit of enriching the soil as fertilizer once they have started to degrade and decompose.

*teonline.com/knowledge-centre/study-technical-textiles.html*

These are the Agro-textiles, also known as Agrotex, that are used in agricultural applications related to growing and harvesting of crops and animals. Not only crop production, they are

also used in forestry, horticulture, as well as animal and poultry rearing including animal clothing. Agro-textiles have to be strong, elongated, stiff, bio-degradable, resistant to sunlight and toxic environment.

*Texworld*

Any textile material used in agriculture, horticulture or fisheries.

### **Aida**

*Dictionaryoftext00*

Cloth for table purposes, awnings, etc., made in plain weave, the pattern being thrown alternately on the face and on the reverse side.

### **Aida canvas, Aida cloth**

*Apparesearch*

Aida cloth is cloth traditionally used for cross-stitch. It comes in various even sizes, indicating the number of squares per inch.

*crossstitch.about.com/od/aidafabric/p/aidaprofile.htm*

Aida fabric is the perfect material for Cross Stitch designs. Tiny holes in the fabric assist with stitch placement. Many colors of the fabric are available with common fabric counts, or squares per inch, ranging from 6 to 18. Aida Fabric is an evenweave or open weave fabric.

Aida is woven in such a way that tiny uniformly-sized squares are formed. Each square is the same width and height. Aida is 100% cotton. The fabric is washable, durable, easy to care for, and sturdy enough to withstand repeated handling, particularly by new stitchers.

The grid on a Cross Stitch pattern corresponds to the grid on Aida fabric making it easy to determine stitch placement.

*Dictionaryoftext00*

Plain and open weave fabric, woven with one thread in each warp and filling, often also with two threads paired without twist; made of linen, also cotton and wool; used for embroidery.

Also called Java canvas or fancy oatmeal.

*Texsite*

(a) Patterned in hollow web (hollow fabric), it is used for table mats. The pattern is made by an interconnection of face- and back fabric weaves.

(b) Name for gauze weave, which is popularly used for fine, porous, lightweight fabrics used for shirts and blouses.

(c) Stiff cottonfabric used as a foundation material for embroidery by hand. Woven in derivative linen weave. In alternation in every fourth warp and weft thread of various thicknesses is a small space, giving the impression of a fabric with a gauze weave. For reinforcement it is treated with a special toughening agent.

### **Ailanthus**

*Dictionaryoftext*

Wild silk of grayish or brownish color, produced by the *Attacus atlas* in India.

*Wikipedia.org*

A silk spinning moth, the Ailanthus silkmoth (*Samia cynthia*), lives on Ailanthus leaves, and yields a silk more durable and cheaper than mulberry silk, but inferior to it in fineness and gloss. This moth has been introduced to the eastern United States and is common near many towns; it is about 12 cm across, with angulated wings, and in colour olive brown, with white markings. Other Lepidoptera whose larvae feed on Ailanthus include *Endoclita malabaricus*.

### **Ailesham**

*antique vintage dictionary*

fine linen cloth, plain woven

### **Air analyser, Air monitor**

### **Analizator zraka**

*Environmental Engineering Dictionary, edited by C. C. Lee*

Typical air analysers include combustible atmosphere indicator, colourimetric indicator tube, oxygen indicator, and toxic atmosphere monitor.

### **Air bag, Airbag**

*Ca-bc.com/zip\_internacional/usedmach/education/*

An automatically inflating bag in front of riders in an automobile to protect them from pitching forward in an accident. End use for manufactured textile fibers.

*Encyclopedic Dictionary of Polymers, Volume 1, edited by Jan W. Gooch*

An automatically inflating bag in front of riders in an automobile, to protect them from pitching forward in an accident. End use for manufactured textile fibres.

*Wikipedia*

An airbag is a vehicle safety device. It is an occupant restraint consisting of a flexible envelope designed to inflate rapidly in an automobile collision, to prevent vehicle occupants from striking hard interior objects such as steering wheels.

### **Air bearing**

#### **Zračni ležaj**

*Glossary of Paint and Coatings Terminology, M. Pavlič, Ljubljana 2002.*

A stream of air used to support a spinning shaft. Air bearings have limited load bearing capacity but require no lubricants.

### **Air blast**

#### **Zračni mlaz**

*Polymer Technology Dictionary, by Tony Whelan*

An ejection technique used, for example, during injection moulding of a thermosetting plastic, to remove loose flash. A blast of compressed air, applied across the surface of the mould as the product is ejected.

### **Air brush**

*vidi*

### **Spray gun**

*owsphinx.com/page/design-ideas/rugs-101/glossary-of-terms*

An effect created by varying colors of yarn giving the rug a washed appearance. Machine made area rug manufacturers use this to create the look of fine, hand-made carpets.

### **Air brushing**

*Ca-bc.com/zip\_internacional/usedmach/education/*

Blowing color on a fabric or paper with a mechanized pneumatic brush.

*worldwide.com.au/print-and-design-dictionary.htm*

An illustration technique using an air-brush which blows air through liquid ink to form a spray and so achieve graduated effects.

### **Air-bubble viscometer**

*Encyclopedic Dictionary of Polymers, Volume 1 edited by Jan W. Gooch*

An instrument used to measure the viscosity of oils, varnishing and resin solutions by matching the rate of rise of an air bubble in the sample liquid with the rate of rise in one of a series of standard liquids, whose viscosity is known.

### **Air-bubble void**

*netcomposites.com/glossary*

Air entrapment within and between the plies of reinforcement or within a bondline or encapsulated area; localized, noninterconnected, spherical in shape.

**Air classification**

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

The separation and grading of solid particles of a material by density or size by a technique of progressive suspension or settling, as in a rising stream of air at a controlled velocity, each grading being reported as the percentage of the original sample.

**Air conditioner**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

(1) Any device that modifies and controls one or more aspects of air, such as temperature, relative humidity, purity or motion. (2) Such a device used in a building, room, vehicle or other enclosed area to maintain the air therein at a comfortably cool and dry level.

**Air conditioning**

*Ca-bc.com/zip\_internacional/usedmach/education/*

1. A chemical process for sealing short, fuzzy fibers into a yarn. Fabrics made from air-conditioned yarns are porous. Because they allow more air circulation, these fabrics are also cooler. 2. Control of temperature and/or humidity in work or living space.

*Enviro-solution.com*

The process of treating air so as to control simultaneously its temperature, humidity, cleanliness, and distribution. The system may be designed for summer air-conditioning or for winter air-conditioning or for both, and may also include control of factors affecting both the physical and chemical conditions of the atmosphere such as dust, bacteria, odours, toxic gases and ionization.

**Air content**

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

The volume of air in the pore space of aggregate particles, usually expressed as a percentage of total volume.

**Air-cooled finish**

*resil.com/c.htm*

A process of finishing fabrics to make them more porous so that air can circulate through the openings between the yarns. Fabrics so finished are said to 'breathe', a feature important for summer fabrics.

**Air-covered yarn**

*bisfa.org/booklets/BISFA\_Terminology2009.pdf*

Elastic yarn with bare and twistless elastane (or other elastic) core covered by one or more relatively inelastic cover yarns mingled together by an air stream with the core entwined by the filaments with randomly distributed interlacing points.

*Hosieryassociation.com*

False twist textured yarn air-entangled around the extended core. This is accomplished by forcing compressed air into a jet device through which both the core and cover yarns travel, entangling or tacing the cover yarn around the core.

*Seamlessconsort.com*

An elastomeric yarn, usually spandex, that has gone through a winding process while being plied with another yarn(s), usually filament nylon or polyester, and through the use of air jets the outer yarn and the core are "tacked" or intermingled together. This typically results in a very cost effective "covered" yarn.

### **Air diffusion rate**

*cuno.com/healthcare/pdfs/technical\_docs/BioASSURE\_Integrity\_Testing.pdf*

According to Fick's Law of Diffusion, when a differential gas pressure exists across a wetted membrane, the gas molecules will "diffuse" through the water filling the pores of the membrane. The rate of passage is proportional to the solubility of the gas in the wetting fluid, the surface tension of the wetting fluid, the differential pressure, the thickness of the membrane, the pore size, and the surface area of the membrane. The diffusion rate is measured at a pressure below the membrane bubble point pressure. If no bulk flow exists, then there are no pores large enough to compromise the filter's integrity.

*Novasep.com*

The rate at which air diffuses through the wetted pores of membrane at a given differential pressure. Measuring the air diffusion rate is a method used to check the integrity of a membrane filter.

*pall.com/pdf/R00640\_B\_Membrane\_Cassette\_Care\_and\_Use\_Procedures.pdf*

Method to determine membrane cassette integrity. Also called Forward Flow Value. It is the rate of gas diffusing through the wetted pores, or bypassing seals of the membrane at a given differential pressure.

### **Air-dried coating**

*etfinancial.com/coatingsgloss.htm*

Coatings which are not heated above 194 °F (90 °C) for coating or drying. In the South Coast Air Quality Management District, curing also must be done below (rather than at or below) 194 °F (90 °C) to qualify as air dried. Air-dried coatings also include forced-air dried coatings.

*rules.utah.gov/publicat/code/r307/r307-340.htm#T3*

coatings that are dried by the use of air or a forced warm air at temperatures up to 90 degrees C

### **Air drier**

**Uređaj za sušenje zraka, Zračni sušionik**

*Glossary of Paint and Coatings Terminology, M. Pavlič, Ljubljana 2002.*

Used to remove moisture from compressed air. Driers have three basic styles of operation: (1) deliquescent types have disposable drying agents and tend to be marginally important for painting, (2) refrigerated dryers cool the air to condense out the water. Most paint systems use this type, (3) desiccant types have a double bed dryer and are able to achieve the lowest dew point air. the beds are alternatively on-stream and back-flushed to regenerate their moisture absorbing qualities.

### **Air drying, Cabinet drying**

*Bennette.com*

Drying an applied coating at ordinary room temperature, i.e., 60 degrees to 80 degrees F. and 40% to 60% relative humidity.

*drycleaningcomplaints.com/Fair Claims Guide=DIA.pdf*

A method of drying or deodorising in which there is no movement of the article being dried. Hot air circulates around it as it hangs in a closed area until the residual solvent is evaporated; or it can be hung in an open area until dry. The temperatures employed in cabinet drying are the same as with tumble drying. The time cycle extends up to several hours, depending on the bulkiness of the article. (Note air drying only permitted when using petroleum solvent and then with strict regulation).

*finishwiz.com/definitions.htm*

A common form of curing a coating in which drying takes place by oxidation or solvent evaporation by simple exposure to air without heat or catalyst.

*healsfang.com/infoleatherterms\_a.html*

Drying of hides, skins or finished leather by exposure to the air until equilibrium is reached.

*hmgpaint.com/help/glossary/*

A coating system, which dries at normal temperatures. Some dry just by the evaporation of solvents, whilst others also cure by reaction with the oxygen in the air.

*Polymer science dictionary, by Mark S.M.Alger*

The hardening of a drying or semi-drying oil or of an oil-modified alkyd resin, caused by atmospheric oxygen reacting with labile sites allyle to the double bond of the unsaturated group of the fatty acid components of the oil. This produces peroxydes and other free radicals, which combine to join the oil molecules together, which in the case of alkyds crosslinks the polymer chains. Reaction is limited to the surface layers, but when the oil is spread as a film, the whole film will harden. In alkyd resins used as coatings, the drying process is accelerated by the use o metal soaps as driers.

*scribd.com/doc/30137757/Leather*

Air drying, probably the oldest curing system, has the advantages of simplicity, speed, and low cost. The disadvantages are possible case hardening and excessive adhesion of the fibers.

Drying (qv) involves the migration of water to the surface of the skin and subsequent evaporation. If the hide is thick and evaporation fast, a sealing of the surface of the hide may occur preventing continued migration of the water. As a result the water may be trapped in the hide and bacterial degradation can thus occur in the center of the hide.

*specialchem4coatings.com/resources/glossary/*

Form of curing a coating (the most common one) by oxidation or solvent evaporation by simple exposure to air without heat or catalyst. Velocity of air-drying depends on the concentration and structure of double-bonds in the binder, the right selection of the drier (or drier system), temperature, and film thickness.

### **Air entangled thread**

*Amefid Glossary of textile terms*

Threads that have been made from continuous filaments that have been entangled by high-pressure air as they run through an air jet. Air entangled threads can be made either with a "parallel" or "core & effect" construction. The core & effect construction thread has superior ply security minimizing thread breakage. A&E's air entangled thread is called Magic® and it comes in a variety of sizes from T-21 to T-135. Same as "locked filament" thread. (See Thread Construction.)

*Thread construction*

Is made from continuous filaments of polyester that are entangled as they pass through a high pressure air jet. This yarn is then twisted, dyed, and wound on cones with lubricant. Air entangled threads are used in everything from seaming flags to heavy denim jeans. (Example products are Magic®, Signature® Plus, and Signature Machine Embroidery™.)

*Zabin.com*

Threads that have been made from continuous filaments that have been entangled by high-pressure air as they run through an air jet. Air entangled threads can be made either with a "parallel" or "core & effect" construction. The core & effect construction thread has superior ply security minimizing thread breakage.

### **Air-entangling, Intermingling, Commingling or Heathering**

*antron capet and fibres*

A method of producing yarn by combining two or more BCF fibers together. Fibers are "locked" together via air jets at regular or irregular intervals. The process is used to obtain special effect yarn (i.e., mixing dye variants to get heather effects upon subsequent dyeing or



combining different colors of solution dyed fiber). Various air-entangling processes exist making it possible to produce a wide range of aesthetics in finished yarns, from highly blended, near solid looks to yarns where individual colors are accented and color separation mimics that of plied yarns.

*carpetbuyershandbook.com/carpet-glossary/glossary-a/*

A process of any combination (up to 15 plies) of solid color yarn ends are passed through an air jet box which blows a high pressure intermittent jet of air past the yarn, mingling the fine hair-like filaments into one homogeneous bundle, which takes on a color of its own. This process has allowed for great expansion of color flexibility. (also air-interlacing or commingling) A system for producing yarn from BCF singles (primarily polypropylene or nylon), in which fibers are locked together (entangled) in nodules by jets of air.

*Staticworx*

A method of producing yarn by combining two or more BCF fibers together. Fibers are "locked" together via air jets at regular or irregular intervals. Various air-entangling processes exist making it possible to produce a wide range of aesthetics in finished yarns, from highly blended, near solid looks to yarns where individual colors are accented and color separation mimics that of plied yarns.

### **Air entrapment**

*netcomposites.com/glossary*

Occlusion of air in a resin or resin glass system, giving rise to blisters, bubbles or voids in the system.

### **Air filter**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

A device attached to an air intake mechanism to remove solid impurities from an airstream . May be used with ventilating mechanisms, or to prevent pollutants from entering an instrument or engine.

### **Air flotation**

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

A process used to separate light from heavy particles by a strong current of air which carries the finer particles away and allows the larger and heavier ones to fall back to be re-ground.

### **Air forming, Aerodynamic forming**

*anguswilde.com/dictionary-sample.pdf*

Forming technique in which the individual fibers (at high dryness levels) are transported and uniformly distributed onto the forming medium in an air stream.

*Ca-bc.com/zip\_internacional/usedmach/education/*

A process in which air is used to separate and move fibers to fashion a web such as the Kroyer® process for short fibers, usually of wood pulp; or the Rando-Webber® process for staple-length fibers.

*composites.ugent.be/home\_made\_composites/documentation/Glossary\_of\_textile\_terms\_for\_composites.pdf*

A **process** in which **air** is used to separate and **move** fibers to **fashion** a web.

*Encyclopedic Dictionary of Polymers, Volume 1, edited by Jan W. Gooch*

A process in which air is used to separate and move fibres to fashion a web, usually used for wood pulp fibres or stable length fibres.

### **Air gap**

## Zračni zazor

*Extrusion Glossary of Terms, Polydynamics*

In extrusion coating, the distance from the die opening to the nip formed by the pressure roll and the chill roll.

## Air gun

*vidi*

## Spray gun

## Air-jet coating

*Mijnwoordenboek*

a roll coating method in which the applied coating slip is evened out and the excess removed by means of a uniform stream of compressed air suitably directed from a slot placed across the machine in close proximity to the coated surface of roll-supported web

## Air-jet dyeing machine

*c2p2online.com/documents/BATEA-textile.doc*

Air jet dyeing machines have liquor ratio 1:1 to 3:1; however, the type of production on this type of equipment is limited in scope, and these machines are very expensive. In actual practice, even with modern "state of the art" high temperature jet dyeing machines, the practical liquor-ratio will be 6:1, compared with older jet dyeing machines at 12:1 and conventional dye beck machines with an actual liquor ratio of 16 to 24:1 (dependant upon the type of fabric being processed).

*scribd.com/doc/18681846/Textile-Reference-Book-for-Finishing*

The most modern rope-dyeing machines on the market. The operating principle is similar to ther of the jet-dyeing system, but the fabric, guided by a motorised reel, is exposed inside a nozzle to a stream of forced air, blowing from one to two turbines (or fans) which take the air from inside. During the transport stage, or at the exit of the transport section, the rope of the fabric is sprayed with a controlled quantity of dyeing liquor. The atomised quantity of liquod slightly exceeds the one the fibre can actually absorb. When the fabric folds in the perforated collection vat, it releases the excess liquor, which is recirculated by a special pump. The high speed of the fabric feed, together with the reduced liquor ratio, offer optimal dyeing results in a short time. It also reduces water consumption and auxiliaries and dyes necessary are lower which results in cost reduction, as well as less waste waters in the environment.

## Air-jet loom

*p2pays.org/ref/02/01099/0109902.pdf*

Air-jet looms use a blast of air to move the fill yarn and can operate at up to 320 picks per minute. These looms are limited in the types of filling yarns they can handle.

*Teampuma*

a loom in which the weft yarn is propelled through the shed by means of a jet of air.

*teonline.com/knowledge-centre/weaving.html*

In the air jet weaving looms, a jet of air is used to propel the weft yarn through the shed at speeds of up to 600 ppm. Uniform weft yarns are needed to make fabrics on this loom. Also heavier yarns are suitable for air jet looms as the lighter fabrics are very difficult to control through shed. However, too heavy yarns also can't be carried across the loom by air jet. In spite of these limitations, air jet loom can produce a wide variety of fabrics.

*textileglossary.com/terms/air-jet-loom.html*

A shuttleless loom capable of very high speeds that uses an  air jet to propel the filling yarn through the shed.

## Air-jet spinning

## Pneumatsko predenje

*Handbook of technical textiles Edited by A R Horrocks and S C Anand*

Air-jet spinning technology was first introduced by Du Pont in 1963, but it has only been made commercially successful by Murata since 1980. Du Pont used only one jet, which produced a low strength yarn. The Murata system has two opposing air jets, which improves the yarn strength. The twin-jet Murata Jet Spinner is illustrated in Fig. 3.7. Staple fibres are drafted using a roller drafting system with three or four pairs of rollers. The fibres are then threaded through the twin-jet assembly. The second jet N2 has a higher twisting torque than the first jet N1. Immediately after leaving the front drafting rollers, the fibres in the core of the yarn are twisted in the twist direction of N2. The fibres on the edges of the drafted ribbon are twisted by the weaker N1 and wrap around the core fibres in the opposite direction. Because the jet system is located between the front drafting rollers and the yarn delivery rollers, neither of which rotates around the axis of the yarn, the twist inserted by the jets is not real twist and after the yarn passes through the jet system, the core fibres become twistless. The yarn strength is imparted by the wrapping of the edge fibres. Because of the small jet dimensions, very high rotational jet speeds are possible. Although twist efficiency is only 6–12% because of the twist resistance of the yarn, delivery speeds of up to 300 mmin<sup>-1</sup> are possible. In a further development by Murata the second jet is replaced with a pair of roller twisters. The principle of yarn formation is similar to the twin-jet system. The new machine, the roller-jet spinner, is capable of delivery speeds of up to 400 m min<sup>-1</sup>. However, the yarn has a harsher handle. Air-jet yarns have no real twist, therefore they tend to have higher bulk than ring and rotor yarns and better absorbency. They are more resistant to pilling and have little untwisting tendency. Because the yarn strength is imparted by the wrapping fibres, not the twisting of the complete fibre strand, air-jet yarns have lower tensile strength than ring and rotor yarns. The system is only suitable for medium to fine yarn linear densities as the effectiveness of wrapping decreases with the yarn thickness. The rigid yarn core of parallel fibres makes the yarn stiffer than the ring and rotor yarns.

*Britannica*

...spinning (a type of open-end spinning), in which fibres are detached from the card sliver and twisted, within a rotor, as they are joined to the end of the yarn. For the production of cotton blends, air-jet spinning may be used; in this high-speed method, air currents wrap loose fibres around a straight sliver core.

*Ca-bc.com/zip\_internacional/usedmach/education/*

A spinning system in which yarn is made by wrapping fibers around a core stream of fibers with compressed air. In this process, the fibers are drafted to appropriate sliver size, then fed to the air jet chambers where they are twisted, first in one direction, then in the reverse direction in a second chamber. They are stabilized after each twisting operation.

*cottoncrc.org.au/files/e481c4ad-3fe5-4f36-9d61.../FibrePakweb.pdf*

Sliver is fed into the machine and is further drawn out to the final count and twist is inserted by means of a rotating vortex of high pressured air. The resultant yarn is cleared of any defects and wound onto packages ready for use in fabric formation. The production rate of air jet/vortex spinning is 3-5 times higher than rotor spinning and 10-20 times that of ring spinning and, like rotor spinning, air-jet spun yarn is a lot cheaper to produce as it also uses fewer production stages. As is the case with rotor spun yarns, air jet yarns are more even, but weaker and have a harsher feel than ring spun yarns. Airjet spun yarns are mainly produced in the medium count (30 Ne, 20 tex) range and are mainly polyester/cotton blended yarns. End uses include woven sheeting and knitted lightweight shirting.

*composites.ugent.be/home\_made\_composites/documentation/Glossary\_of\_textile\_terms\_for\_composites.pdf*

**A spinning system** in which yarn is **made** by **wrapping** fibers around a **core** stream of fibers with compressed air. In this process, the fibers **are** drafted to appropriate sliver size, then fed to the air-jet **chamber** where they are twisted, first in one direction, then in the reverse direction in a second chamber. They are stabilized after each twisting operation.

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*Infosource411*

During Air Jet Spinning yarn is made by wrapping fibers around a core stream of fibers with compressed air. In this process, the fibers are stretched to the appropriate size, then fed to the air jet chambers where they are twisted, first in one direction, then in the reverse direction in a second chamber. The yarn is stabilized after each operation. Yarn produced on Air Jet pills less because the spinning process creates a tighter outer wrap which holds typically loose polyester fibers (experienced in Open End Spinning) in place. Fewer loose polyester fibers means less pilling.

*Textile Design: Principles, Advances and Applications, A Briggs-Goode, K Townsend*

The rate of yarn production using this method is as high as ten times that of ring-spinning and twice as fast as open-end-spinning. It is used for polyester and polyester-cotton blends. Air-jet spun yarns are made up of a core of relatively straight staple fibres, held together by fibres would round the core.

*Top 500*

Air-jet spinning is described as a continuous spinning process where fibers wrap around each other separately and then wrap around each other creating fiber bundles. By rotating the fiber bundles in opposite directions., they are transformed to yarn.

### **Air jet texturing**

*britannica.com/technology/man-made-fiber#ref625385*

Air-jet texturing is used with a single type of yarn or with a blend of filament yarns. In the latter case fancy yarn mixtures are obtained. This method of texturing is carried out by feeding a wet yarn or a dry yarn plus a small amount of water into a high-speed jet of air.

Yarns textured in such a process contain a large number of very fine filaments, however, increasing the probability of entanglement.

*Ca-bc.com/zip\_internacional/usedmach/education/*

In this method of texturing, yarn is led through the turbulent region of an air jet at a rate faster than it is drawn off on the far side of the jet. In the jet, the yarn structure is opened, loops are formed, and the structure is closed again. Some loops are locked inside and others are locked on the surface of the yarn. An example of this method is the Taslan process. (Also see TEXTURED YARNS, Core-Bulked Yarn and Entangled Yarn.)

*msubaroda.ac.in/phd2010/Thesissupplimentary6.pdf*

Air-jet textured yarns are produced from thermoplastic, cellulosic or non-organic filament yarns using a turbulent fluid, which is usually compressed air. Loops are formed on the surface of the filament yarn, giving it a voluminous character. Depending upon the material used the loop structure results in a yarn with characteristics, which resemble those of the conventional staple fiber product

*tactel.com/\_pdf/tactel\_edukit01.pdf*

Yarn is texturised by overfeeding into a high-pressure jet of air, to create a looped and more “natural” appearance yarn. · Bulk level controlled by input speed (overfeed) and jet take out speed. · Can be used to combine two or more ends of different filaments or multiple ends of the same filaments (Core and Effect and Parallel) to make a single end of yarn.

### **Air jet weaving**

*Expresstextile*

Air-jet weaving is a type of weaving in which the weft yarn is inserted into the warp shed with compressed air. The main advantages of these looms are simple operation and reduced hazard because of few moving parts with a reduced space required. Air-jet machines can be used for weaving spun yarns ranging from gauze to dense woven fabrics and in filament sector from light weight linings to tape fabrics. Electronic let-off maintains consistent warp tension from full beam to empty beam. Automatic package monitoring system can be adopted on almost all airjet-weaving machines. This keeps the yarn flight time constant when changing from empty to full package. Low noise and vibration levels. Low spare part requirement, minimum maintenance. Used for manufacturing tent fabrics, airbags, parachutes etc.

### **Air knife**

**Zračna četka, Zračni nož**

*Glossary of Paint and Coatings Terminology, M. Pavlič, Ljubljana 2002.*

A slotted jet of compressed air acting as an effective air knife to quickly blow superfluous water from parts, often before they enter a drying oven.

### **Air knife coating**

**Oslojavanje zračnim nožem**

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

A knife-coating technique especially suitable for thin coatings, such as adhesives, wherein a high-pressure jet of air, along with a metered quantity of the material, is forced through orifices in the knife to control the thickness of the material coating (see – Spread coating).

*Handbook of technical textiles Edited by A R Horrocks and S C Anand*

In discussing knife coating, mention must also be made of the air knife as a method of removal of the excess coating fluid. In this technique a blast of air is used to blow off the excess coating fluid. The viscosity of the fluid is much lower than in the case of conventional knife doctoring and the coating applied follows the profile of the substrate to which it is being

applied. The technique is more frequently used in the paper industry, where it is used to coat photographic paper, rather than in the textile industry.

### **Air-laid nonwovens**

*Ca-bc.com/zip\_internacional/usedmach/education/*

Fabrics made by an air-forming process (q.v.). The fibers are distributed by air currents to give a random orientation within the web and a fabric with isotropic properties.

*composites.ugent.be/home\_made\_composites/documentation/Glossary\_of\_textile\_terms\_for\_composites.pdf*

Fabrics made by an airforming process. The fibers are distributed by air currents to give a random orientation with the web and a fabric with isotropic properties.

*ilo.org/safework\_bookshelf/english?content&nd=857171062*

There is some nomenclature confusion in regard to air-laid nonwovens. One of the variations of carding processes includes a card that includes a section that randomizes the fibres being processed in an air stream. This process is often referred to as an “air-laid nonwoven process”. Another, very different, process, also called air laid, involves the dispersion of fibres in an air stream, usually using a hammer mill, and directing the airborne fibre dispersion to a device that deposits the fibres on a moving belt. The web formed is then spray bonded and cured. The laydown process may be repeated in line with different types of fibres to produce nonwoven fabrics from layers with different fibre compositions. The fibres used in this case can be very short, and protection to prevent exposure to such airborne fibres must be taken.

### **Air-laid pulp**

*Inda.org.*

An air laid nonwoven that is produced with fluff, wood pulp. The web can be bonded with resin and/or thermal plastic resins dispersed within the pulp.

### **Air laying, Air-laid process, Airlaying**

*clariantindia.com/hronicle\_July06.pdf*

In air-laying, the fibres, which can be very short, are fed into an air stream and from there to a moving belt or perforated drum, where they form a randomly oriented web. Compared with carded webs, airlaid webs have a lower density, a greater softness and an absence of laminar structure. Airlaid webs offer great versatility in terms of the fibres and fibre blends that can be used.

*disposable diaper.net/files/dictionary.pdf*

The process of dispersing fibers in a moving air stream and then collecting on a forming surface to produce lofty, porous webs.

*geocities.com/srimrk/Non\_woven.htm*

The orientation created by carding is effectively improved by capturing fibers on a screen from an air-stream. This is done on a Rando-Webber component. Starting with a lap or plied card webs fed by a feed roller, the fibers are separated by a licker-in or spiked roller and introduced into an air-stream. The total randomization excludes any preferred orientation when the fibers are collected on the condenser screen. The web is delivered to a conveyor for transporting to the bonding area. Feeding of the Rando-Webber by the cards increases the uniformity of the web. The length of fibers used in air-laying varies from 2 to 6 cm. The shorter lengths allow higher production speeds. Longer fibers require higher air volume, i.e., a lower fiber density to avoid tangling. Problems associated with air-laying are speed, web uniformity and weight limitations. Due to uniformity problems, it has not been practical to make isotropic webs lighter than 30g/m<sup>2</sup>. Air-laying is slower than carding and, hence, more expensive.

*Inda.org*

A nonwoven web forming process that disperses fibers into a fast moving air stream and condenses them onto a moving screen by means of pressure or vacuum.

*Textilesintelligence*

a method in which fibres are first dispersed into an air stream, and then condensed from the air stream on to a permeable cage or conveyor to form a web or batt of staple fibres.

### **Air permeability**

*Ca-bc.com/zip\_internacional/usedmach/education/*

The porosity or the ease with which air passes through material. Air permeability determines such factors as the wind resistance of sailcloth, the air resistance of parachute cloth, and the efficacy of various types of air filters. It also influences the warmth or coolness of a fabric.

*Environmental Engineering Dictionary, edited by C. C. Lee*

(1) Permeability of soil with respect to air, measured in centimeters per second. (2) The property that allows passage of air through a mass.

*HAND BOOK ON GLOSSARY OF TEXTILE TERMS, BUREAU OF INDIAN STANDARDS NEW DELHI 110 002, UDC 001.4/677 (021) ISBN 81-7061-009-5*

The rate of air flow through fabric under differential pressures between the two fabric surfaces. Expressed generally in cubic metres of air per minute per square metre of fabric at a stated pressure difference between the two surfaces of the fabric.

*hs.iastate.edu/online/classweb/Spring2009/AESHM/TC305/Notes/ComfortSafetyHealth*

rate of air flow passing vertically through known area of material when air pressure difference exists between its two sides. ASTM D 737 Air Permeability of Textile Fabrics; measured in ft<sup>3</sup>/min/ft<sup>2</sup> (air volume flowing each minute through exposed fabric).

*Technical centre*

The porosity of a fabric as estimated by the ease with which air passes through it. Air permeability measures the warmth of blankets, the air resistance of parachute cloth, the wind resistance of sailcloth, etc. as measured on standard testing equipment.

### **Air pollutant**

*arb.ca.gov/DRDB/MOJ/CURHTML/R1401.HTM*

Any air pollution agent or combination of such agents, including any physical, chemical, biological or radioactive (including source material, special nuclear material and byproduct material) substance or matter which is emitted into or otherwise enters the ambient air. Such term includes any precursors to the formation of any air pollutant.

*Environmental Engineering Dictionary, edited by C. C. Lee*

In general, air pollutants can be grouped into four classes: (1) organic gases which include paraffins, olefins, aromatics and others, (2) inorganic gases which include oxides of nitrogen, oxides of sulphur and carbon monoxide, (3) aerosols (particulate matter) which include solid particles, metal oxides and salts, silicates and mineral dusts, and metallic fumes from industry, (4) liquid particles which include acid drops, oily and tarry droplets, paints and surface coatings.

*epa.gov/OCEPAterms/aterms.html*

Any substance in air that could, in high enough concentration, harm man, other animals, vegetation, or material. Pollutants may include almost any natural or artificial composition of airborne matter capable of being airborne. They may be in the form of solid particles, liquid droplets, gases, or in combination thereof. Generally, they fall into two main groups: (1) those emitted directly from identifiable sources and (2) those produced in the air by interaction between two or more primary pollutants, or by reaction with normal atmospheric constituents, with or without photoactivation. Exclusive of pollen, fog, and dust, which are of natural origin, about 100 contaminants have been identified. Air pollutants are often grouped in

categories for ease in classification; some of the categories are: solids, sulfur compounds, volatile organic chemicals, particulate matter, nitrogen compounds, oxygen compounds, halogen compounds, radioactive compound, and odors.

[nada.org/green/getinvolved/glossary/](http://nada.org/green/getinvolved/glossary/)

Any substance in air that could, in high enough concentration, harm humans, animals, vegetation or material. Pollutants may include almost any natural or artificial composition of matter capable of being airborne. They may be in the form of solid particles, liquid droplets, gases or any combination thereof. Air pollutants are often grouped in categories for ease in classification. Some of these categories are solids, sulfur compounds, volatile organic compounds, particulate matter, nitrogen compounds, oxygen compounds, halogen compounds, radioactive compounds and odors.

[san.hufs.ac.kr/~gwlee/glossary.html](http://san.hufs.ac.kr/~gwlee/glossary.html)

any liquid, solid, or gaseous substance that exists in the air in high enough concentrations to be considered hazardous or even a nuisance.

### **Air pollution**

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

Unclean, impure, or contaminated air. Implies significant befoulment, decay or corruption through contamination.

*Environmental Engineering Dictionary, edited by C. C. Lee*

(1) The presence in the atmosphere of one or more air contaminants in sufficient quantities and of such characteristics and duration as to be injurious to human, plant, or animal life, to health or to property or to unreasonably interfere with the enjoyment of life and property. (2)

The presence of contaminants or pollutant substances in the air that interfere with human health or welfare, or produce other harmful environmental effects.

[epa.gov/OCEPATERMS/ATERMS.html](http://epa.gov/OCEPATERMS/ATERMS.html)

The presence of contaminants or pollutant substances in the air that interfere with human health or welfare, or produce other harmful environmental effects.

*Shsu.edu*

The contamination of the atmosphere by any toxic or radioactive gases and particulate matter as a result of human activity.

### **Air quality assessment**

#### **Procjena kvalitete zraka**

*Environmental Engineering Dictionary, edited by C. C. Lee*

Collection, handling, evaluation, analysis and presentation of data necessary to understand the air pollution problem of a certain area and its causes. These data normally refer to geography, topography, land use, sources and emissions, ambient air quality, meteorology, climatology, atmospheric chemistry, etc.

### **Air resistance**

#### **Otpor zraka**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Sila koja se pojavljuje pri gibanju tijela kroz zrak, pritom ima smjer koji je suprotan smjeru gibanja tjela. Iznos te sile najčešće linearno ili kvadratično ovisi o brzini tijela,**

### **Air retention test**

*Trelleborg.com*

Coated fabrics, which are to be fabricated into air-holding articles, are tested by this method to ensure that the coated fabric does not allow air leakage. Fabric is inflated with specific lbs.



of air, depending on customer's specifications, covered with water, left for a determined amount of time, and checked for air bubbles.

### **Air sampling**

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

Determining quantities and types of atmospheric contaminants by measuring and evaluating a representative sample of air. The most numerous environmental hazards are chemical, ones which can be conveniently divided into (1) the particulates, and (2) the gases or vapours. Particulates are mixtures or dispersions of solid or liquid particles in air and include dust, smoke and mist.

### **Air separator**

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

A device in which a stream of air at a controlled velocity is used as a means of separating particles of solid material as they remain suspended in the stream or settle from the stream.

### **Air slip forming**

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

A vacuum forming process utilising an air cushion to prevent the mold from contacting the sheet until the end of its travel. At the end, vacuum is applied to destroy the air cushion and pull the sheet against the mould (see – Thermoforming).

### **Air-speed drying**

*Naldr.nal.usda.gov*

Very rapid air drying in which relatively high temperatures and controlled humidity are used.

### **Air splice**

*Amefid Glossary of textile terms*

A means of joining ends of yarn together using high pressure air. This produces a union not as thick as a weaver's knot so a better quality product is produced. Air splices will sew through the needle of a lockstitch without causing a sewing interruption.

*Fibreset*

The coupling between two roving doffs which is made by a jet of air entwining/snarling two strands together. The air splice is used instead of a knot.

*Zabin.com*

A means of joining ends of yarn together using high pressure air. This produces a union not as thick as a weaver's knot so a better quality product is produced. Air splices will sew through the needle of a lockstitch without causing a sewing interruption.

### **Air spray**

**Zračni sprej**

*Glossary of Paint and Coatings Terminology, M. Pavlič, Ljubljana 2002.*

A paint spray application system using air at high velocity and pressure to atomise the paint.

### **Air spring, Pneumatic spring**

**Zračna opruga**

*struna\_knj\_14\_strelementi\_04(1381).pdf – Foxit Reader*

**Opruga ispunjena zrakom kojom se apsorbiraju udarci i nagle promjene pri djelovanju promjenjive sile.**

## **Air stripping**

### **Skidanje zrakom**

*Environmental Engineering Dictionary, edited by C. C. Lee*

A treatment system that removes volatile organic compounds (VOCs) from contaminated groundwater or surface water by forcing an air stream through the water and causing the compounds to evaporate.

## **Air-supported roof**

*Answers.com*

Air-supported roofs utilize a waterproof coated fabric that is inflated to its rigid shape by developing and maintaining a positive air pressure inside the structure, which keeps the roof surface under tension. Tennis-court “bubbles” utilize this design. See also Buildings; Reinforced concrete; Structural steel.

*Ca-bc.com/zip\_internacional/usedmach/education/*

A fabric-based roofing system that is supported and held in place by air pressure.

*Wikipedia*

An air-supported structure is any structure that derives its structural integrity from the use of internal pressurized air to inflate a pliable material (i.e. structural fabric) envelope, so that air is the main support of the structure. It is usually dome-shaped, since this shape creates the strongest structure for the least amount of material. To maintain structural integrity, the structure must be pressurized such that the internal pressure is equal to or exceeds any external pressure being applied to the structure (i.e wind pressure). The structure does not have to be airtight to retain structural integrity. As long as the pressurization system that supplies internal pressure replaces any air leakage, the structure will remain stable. All access to the structure interior must be equipped with 2 sets of doors or revolving door (airlock). Air-supported structures are secured by heavy weights on the ground, ground anchors, attached to a foundation, or a combination of these. Among its many uses are: sports and recreation facilities, warehousing, temporary shelters, radomes. The structure can be either wholly, partial, or roof-only air supported. A fully air-supported structure can be intended to be a temporary or semi-temporary facility or permanent, whereas structures with only an air-supported roof can be built as permanent buildings.

## **Air-textured yarn**

*bisfa.org/booklets/BISFA\_Terminology2009.pdf*

Textured filament yarn obtained by overfeeding filament yarn into a turbulent stream of air.

*Textilesintelligence*

a multi-filament yarn which has been given increased bulk through the formation of loops, achieved by passing the yarn through air jets.

## **Air texturing**

*Academic dictionary of textiles, by Vinay Kumar*

A process in which yarns are over-fed through a turbulent air stream so that entangled loops are formed in the filaments.

*polyspintex.com/ups/text06.htm*

The air texturing process was developed about 50 years ago. However, it took nearly 30 years before the first commercial machine for the production of air jet textured apparel yarns was displayed at ITMA in 1979. The air texturing process transforms flat multi-filament yarns into yarns with a spun like character. The similarity to spun yarns has given the textile industry an economically produced product, which - as we know it today - , cannot be matched by any other texturing method. In the process suitable air jet textured apparel yarn

was to run the yarn after the texturing first through a stabilizing and then through a heat setting zone. Having the correct machine design and process steps established, predrawing equipment was added, which now enable us to process inexpensive POY economically into high quality yarns. The properties obtained are high yarn stability, low and uniform package take-off tension, high bulk, reduced boiling water shrinkage, improved soft hand of fabrics, elimination of the Velcro effect of fabrics, high pilling resistance, uniform appearance of the fabric and sizing of warp beams may not be necessary for slower running looms  
*troykyo.net/IED/Method\_and\_Tech\_of\_Materials/Entries/2009/3/11\_Fibers\_files/Materials\_Dictionary.pdf*

A process that produces yarn which has a textured surface. Continuous filaments are over fed through an air stream so that entangled loops are formed in the filaments.

### **Air wicking**

#### **Kapilarno vodenje zraka**

*HAND BOOK ON GLOSSARY OF TEXTILE TERMS, BUREAU OF INDIAN STANDARDS NEW DELHI 110 002, UDC 001.4/677 (021) ISBN 81-7061-009-5*

It is air permeability in the plane of the fabric. The passage of air longitudinally along or through yarns in a fabric that has been encased and cured, e.g. in rubber or other elastomers.

### **Airborne particulates**

#### **Čestice u zraku**

*Environmental Engineering Dictionary, edited by C. C. Lee*

Total suspended particulate matter found in the atmosphere as solid particles or liquid droplets. Chemical composition of particulates varies widely, depending on location and time of year. Sources of airborne particulates include dust, emissions from industrial processes, combustion products from the burning of wood and coal, combustion products associated with motor vehicle or non-road engine exhausts, and reactions to gasses in the atmosphere.

### **Airflow method**

*ic30.icconsulting.com.au/awi/en/Tools/glossary/*

A method of measuring the mean fibre diameter of a sample of wool in which a test specimen (a measured mass of the scoured, dried and carded sample or a measured mass of silver), after exposure to a conditioning atmosphere, is compressed to a fixed volume and a current of air is passed through it. The rate of flow is then adjusted so that the pressure drop across the sample equals the predetermined value, or the pressure drop across the sample is adjusted until the air flow equals a predetermined value. The rate of flow in the first case or the pressure difference in the second case, is an indicator of the mean fibre diameter of the wool in the sample.

*Merinoinnovation.com*

A method of measuring the mean fibre diameter of a sample of wool in which a test specimen (a measured mass of the scoured, dried and carded sample or a measured mass of silver), after exposure to a conditioning atmosphere, is compressed to a fixed volume and a current of air is passed through it. The rate of flow is then adjusted so that the pressure drop across the sample equals the predetermined value, or the pressure drop across the sample is adjusted until the air flow equals a predetermined value. The rate of flow in the first case or the pressure difference in the second case, is an indicator of the mean fibre diameter of the wool in the sample.

### **Airless drying**

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

A drying method in which the air in the drier is recirculated and raised in temperature, so that it is progressively replaced as the heat transfer medium by superheated steam produced from the moist product. No air is permitted to enter the drier during the drying process. The main

advantages lie in the reduction of heating costs, and in the heat recovery from the steam produced by the product.

### **Airless spray**

#### **Bezzračni raspršivač**

*Environmental Engineering Dictionary, edited by C. C. Lee*

A spray coating method in which the coating is atomised by forcing it through a small opening at high pressure. The coating liquid is not mixed with air before exiting from the nozzle.

*Glossary of Paint and Coatings Terminology, M. Pavlič, Ljubljana 2002.*

Paint spray applying system using high fluid pressure to atomise paint by forcing it through a small orifice. It is the method of forcing coating through spray tip by hydraulic pressure rather than by air.

### **Airless spraying, Hydraulic spraying**

#### **Raspršivanje bez zraka**

*composite.about.com/library/glossary/a/bldef-a240.htm*

The process of atomization of a coating by forcing it through a small orifice at high pressure. This effect is often aided by the vaporization of the solvents, especially if they are pre-heated. Not generally applied to those electrostatic spraying processes which do not use air for atomization. The process has also been used in the reinforced plastics field for the spray-up technique.

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

The process of atomisation of a coating by forcing it through a small orifice at high pressure. This effect is often aided by vapourisation of the solvents, especially if they are pre-heated. Not generally applied to those electrostatic spraying processes which do not use air for atomisation. The process has also been used in the reinforced plastics field for the spray-up technique.

*finishwiz.com/definitions.htm*

A spraying system in which coating is atomized using high hydraulic (fluid) pressure rather than compressed air.

*Glossary of Paint and Coatings Terminology, M. Pavlič, Ljubljana 2002.*

The process of atomising paints and coatings by using hydraulic pressure rather than air pressure. The paints and coatings are pressurised between 1000 and 3000 psi, then forced through the small opening of spray tips.

*intota.com/experts.asp?strSearchType=all&strQuery=airless+spraying*

A spray painting process that uses hydraulic pressure instead of air to atomize the paint. Atomization is achieved by forcing the paint at high pressure (2,000 to 3,000 psi) through a spray nozzle with a small orifice. The spray pattern and flow of paint are controlled by the size and shape of the orifice. One of the main advantages of airless spraying is that the paint materials do not need to be thinned as much as in air spraying, thereby producing higher film build and better hiding.

*leighspaints.co.uk/Glossary.aspx*

Method of application which uses hydraulic pressure to atomise the paint. Airless spraying is a very fast and efficient method of application.

*Plastics Materials and Processes, by Charles A. Harper, Google books*

Originally introduced for paint-saving purposes, airless spraying is a high-pressure spraying process in which pressure is sufficiently high to atomize liquid coating particles without air. The droplets have low velocities, because they are not propelled by air pressure as in conventional spray guns. Advantages of airless spray coating are reduced solvent use, less overspray, less bounce-back, and compensation for seasonal ambient air temperature and humidity changes. A disadvantage is its slower coating rate.

### **Airplane fabric, Airplane cloth**

*Academic dictionary of textiles, by Vinay Kumar*

(1) A strong cotton cloth of plain weave treated with dope and formerly used as a covering for the wings and fuselage of airplanes. (2) A similar lighter-weight fabric for shirts and pajamas.

*Beloved linens*

Originally made of linen for airplane wings. Close even texture. Since the war made of cotton in different weights and colors. Used chiefly in shirts. Weave—• plain.

*Ca-bc.com/zip\_internacional/usedmach/education/*

A plain, tightly woven, water-repellent fabric traditionally made of mercerized cotton. During World War I, the fabric was treated with a cellulose acetate dope and used to cover the wings, tail, and fuselage of airplanes. Today, similar fabrics made from nylon or polyester/cotton blends are used in rainwear and sportswear.

*TextileGlossary*

Usually a plain weave, mercerized fabric made of long staple cotton which when treated with dope is used as airplane fabric to cover wings, fuselage or tails. Also used for boys' suits, shirtings, collars and cuffs, skiwear and uniforms.

### **Ajours**

*Beloved linens*

Fr. Syns.: modes (Fr.); fillings, lead-works (Eng.). Fancy open stitches introduced in spaces in the pattern of both bobbin- and needle-point lace.

### **Aklæe**

*carpetbuyershandbook.com/carpet-glossary/glossary-a/*

Norwegian reversible rug of many colors worked on the same principle as true tapestry.

*Textile.web.id*

Norwegian low-warp tapestry technique. Wefts interlock between two warp ends

### **Alamode**

*Academic dictionary of textiles, by Vinay Kumar*

A lightweight, glossy silk fabric used in the manufacture of scarfs, hoods, etc.

*antique vintage dictionary*

silk fabric which is light and glossy

*Dry fabrics*

(Al'-A-Mode). A thin, glossy silk used for hoods and scarfs.

### **Alapat**

*resil.com/c.htm*

A two-ply, fine gauge yarn, spun from coir or coconut fibre

### **Alaska**

*Analysis of Woven Fabrics, by A F and E Midgley Barker*

A yarn composed of combed wool and cotton carded and drawn together to form a mixture.

*Dry goods*

The name given to a variety of sandal-shaped overshoes, without fastenings of any sort, having cloth uppers and rubber soles. [See Rubbers]

*kingsmerecrafts.com/page19.html*

Alaska leather is made from special European hides selected for their fine grain and full character. The tanning process is carefully adjusted to enhance the leather's natural beauty and maintain its original character. After, the leather is richly dyed in the drum and finished with a

blend of waxes and creams that protect it without clogging it up. The result is a fine, full-grain, full-bodied leather that has all the characteristics of a superior product.

## **Alb**

*Apparelsearch*

a full-length white linen ecclesiastical vestment with long sleeves that is gathered at the waist with a cincture

*Geocities.com*

A linen ecclesiastical vestment with narrow sleeves, worn chiefly by priests.

*Kencollins.com*

An alb, called a *sticharion* in Orthodox churches, is a plain, lightweight, ankle-length tunic with long sleeves. It is generally worn with a rope cincture around the waist. The word *alb* is short for the Latin phrase *tunica alba*, which means *white tunic*; accordingly, albs are usually made of white or undyed fabric.

*Matthewsheehan*

The Alb is a full-length garment usually gathered by a cincture, worn by the principal clergy over the cassock or habit at liturgical functions. Based on the Greco-Roman tunic, it symbolizes the purity consonant with the celebration of the Mass and resembles the white robe with which Herod, in derision, ordered Christ to be covered.

*Newadvent*

A white linen vestment with close fitting sleeves, reaching nearly to the ground and secured round the waist by a girdle (cincture). It has in the past been known by many various names: *linea* or *tunica linea*, from the material of which it is made; *poderis*, *tunica talaris*, or simply *talaris*, from the fact of its reaching to the feet (*tali*, ankles); *camisia*, from the shirt-like nature of the garment; *alba*, (white) from its colour; and finally, *alba Romana*, this last seemingly in contradistinction to the shorter tunics which found favour outside of Rome (cf. Jaffé-Löwenfeld, "Regesta", 2295). Of these the name *alba* almost alone survives.

*Parochia.it*

The alb is white to symbolize the purity in body and soul for which he prays. The priest prays for purity as he puts on the linen, usually laced, garment

*Wikipedia*

The alb, one of the liturgical vestments of the Roman Catholic, Anglican and many Protestant churches, is an ample garment of white linen coming down to the ankles and usually girded with a cincture. It is simply the long linen tunic used by the Romans of old. In Early Medieval Europe it was also normally worn by secular clergy in non-liturgical contexts.[1].

## **Albany collar**

*isaacwالتailoring.co.uk/gamekeeper/pages/clothing/barristers-collars-shirts.php*

Starched cotton day collar.

*shirt-style.co.uk/collarstyles.html*

A small spread collar. Wear with a tie, or open without a tie

*Wikipedia.org*

a standard turndown cutaway collar, worn predominantly in early 20th century.

## **Albatross**

*Beloved linens*

A light weight wool fabric with crepy surface, due to twist of yarns. Piece-dyed, usually in light colors. Launderers well. A variety of albatross 44" wide is called Cripe Egypta, a trade name. Uses: dresses, negligees and infant's wear. Weave—plain. Width, 36".

*Ca-bc.com/zip\_internacional/usedmach/education/*

A soft, lightweight wool or wool blend fabric in a plain weave with a napped, fleecy surface that resembles in texture, the breast of the albatross. It is usually light-colored and is used in negligees, infants' wear, etc.

*Dry goods*

(Al'-Ba-Tross). A soft untwilled woolen dress fabric; properly a soft fine bunting, known by the various names of "Satin Moss," "Vicuna," (the stoutest make), "Snowflake," (which is fluked), and "Antique Cloth." It is of an irregular weave, which produces a surface-appearance similar to momie cloth or cretonne.

*fibrefashion*

a lightweight, plain weave fabric traditionally of wool or wool blends with a napped, fleecy surface. So named because the texture resembles the breast of an albatross. Usually light in color- used in infant's wear, sleep wear.

*Library*

A lightweight, plain weave fabric traditionally of wool or wool blends with a napped, fleecy surface. So named because the texture resembles the breast of an albatross. Usually light in color- used in infant's wear, sleep wear.

*Vintage sewing woolens*

Soft, loosely woven material in black, white, and colors; also made in fancy weaves. Closely related to nun's veiling or chiffon batiste. Used for shirred and draped dresses.

### **Albert cloth**

*Dictionaryoftext00*

Double faced woolen overcoating, the two sides made in different patterns and colors.

*Dry goods*

An all-wool material the two sides of which are of different colors and patterns, each side finished so that no lining is required; used chiefly for men's reversible overcoats.

[higherdbcs.wiley.com/legacy/college/nielson/0471606405/supplementary/Decorative\\_and\\_Support\\_Fabrics\\_Glossary.pdf](http://higherdbcs.wiley.com/legacy/college/nielson/0471606405/supplementary/Decorative_and_Support_Fabrics_Glossary.pdf)

Apparel outerwear double cloth of heavy wool. It is reversible with a pattern on each side.

*Textile dictionary*

Characteristics: It has a double layer of wool and is reversible. Faces and backs may vary in colour and pattern. Provides additional warmth and body. Outerwraps.

*Vintage sewing woolens*

Reversible, double-faced material, each side a different color. Used for coats, suits, and wraps.

### **Albicant**

*Phronistry word*

whitish; becoming white

### **Alceru process**

#### **Alceru postupak**

*Encyclopedic dictionary of named processes in chemical technology, by Alen E. Comnis*

A process for making cellulosic filaments and staple fibres. The cellulose is first dissolved in an aqueous solution of N-methylamine-N-oxide. Developed by Zimmer (Frankfurt) and TITK (Rudolstadt) from 1987. A pilot plant was expected to be built by April 1998.

### **Alcogel**

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

The rigid product obtained in sol-gel processing when metal alcoxide-organic solvent solutions are hydrolised.

### **Alcohol**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

(1) Any of a general class of organic compounds formed by the attachment of one or more hydroxyl (-OH) groups to carbon atoms in place of hydrogen atoms, es.g. methanol, ethanol, propanol, butanol. ROH is the general formula, with R indicating an aliphatic (hydrocarbon) radical and a hydroxyl group (-OH). (2) C<sub>2</sub>O<sub>2</sub>OH, the transparent, colourless volatile liquid that is intoxicant in beverages, such as wine, beer, or whiskey, known technically as ethyl alcohol, or ethanol.

*composite.about.com/library/glossary/a/bldef-a257.htm*

A generic term for organic compounds having the general structure ROH. In the simplest alcohols, R is a C<sub>n</sub>H<sub>2n+1</sub> group, for example CH<sub>3</sub>OH (methanol) or C<sub>2</sub>H<sub>5</sub>OH (ethanol). In more complex alcohols R may be other alkyl, acyclic or alkaryl groups. Alcohols are classified according to the number of OH (hydroxyl) groups they contain—monohydric, dihydric, trihydric or polyhydric. Dihydric alcohols are also known as glycols; trihydric alcohols are also known as glycerol, glycerin or glycol alcohols; and the term polyol is used for polyhydric alcohols. Alcohols have many important applications, including (1) the direct use as solvents, diluents, plasticizers and intermediates and (2) the production of resins such as acrylics, alkyds, amines, polyurethanes and epoxies.

*etfinancial.com/solventgloss.htm*

A series of hydrocarbon derivatives with at least one hydrogen atom replaced by an -OH group. The simplest alcohols (methanol, ethanol, n-propanol, and isopropanol) are good solvents for some organic soils, notably rosin, but are flammable and can form explosive mixtures with air: their use requires caution and well-designed equipment.

*finishwiz.com/definitions.htm*

A group of solvents of relatively high evaporation rate but with fairly low solvent strength. Commonly used as a solvent in shellac, NGR stains, dyes, inks, and lacquer. Alcohols include Methanol, Ethanol, Isopropanol, n-Butanol, Isooctanol, Methyl Isobutyl Carbinol, Isoamyl Alcohol, Isobutyl Alcohol, Cyclohexanol, and Methyl Cyclohexanol. NOTE - Methanol is highly toxic both in skin contact as well as by inhalation. Methanol is readily absorbed by the skin and can metabolize to formaldehyde then to formic acid. Methyl alcohol is also known as methanol, methyl hydrate, or wood alcohol.

*fire.org.uk/glossary.htm*

An organic compound having a hydroxyl (-OH) group attached. The lower molecular weight alcohols, methanol (CH<sub>3</sub>OH), ethanol (C<sub>2</sub>H<sub>5</sub>OH), and propanol (C<sub>3</sub>H<sub>7</sub>OH) are water soluble.

*schools.look4.net.nz/science/chemistry/index/index\_html*

An alcohol is an organic compound with a carbon bound to a hydroxyl group. Examples are methanol, CH<sub>3</sub>OH; ethanol, CH<sub>3</sub>CH<sub>2</sub>OH; propanol, CH<sub>3</sub>CH<sub>2</sub>CH<sub>2</sub>OH. Compounds with -OH attached to an aromatic ring are called phenols rather than alcohols.

### **Alcoholate**

*Dictionary of Ceramic Science and Engineering, By Ian McColm*

A salt formed by replacing the H in OH groups of organic alcohols by metal cations, for example Ti(OC<sub>2</sub>H<sub>5</sub>)<sub>4</sub>. Usually soluble in organic solvents and as a result are used extensively in sol-gel powder manufacture and processing. (See – Alcoxide.)



## **Alcoholysis**

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

General chemical reaction involving an ester exchange or the process of reacting an ester with an alcohol. The cleavage of a C-C- bond by the addition of an alcohol.

## **Aldehyde**

*alcwin.org/Chemical\_Terms\_Description-17-A.htm*

Literally, an *alcohol* that has been *dehydrogenated*. Compounds with at least one hydrogen atom attached to a C=O (carbonyl) group, such as formaldehyde (H<sub>2</sub>CO) or acetaldehyde (CH<sub>3</sub>CHO).

*composite.about.com/library/glossary/a/bldef-a262.htm*

Any of a class of highly reactive organic chemical compounds obtained by oxidation of primary alcohols, characterized by the common group —CHO and used in the manufacture of resins, dyes, and organic acids. Formaldehyde is the simplest and most widely used aldehyde.

*dow.com/productsafety/overview/glossary.htm#termsF*

A type of organic molecule containing a carbonyl group in which a carbon atom is bonded to an oxygen atom with a double covalent bond and to a hydrogen atom with a single covalent bond. Aldehydes can be reduced to form alcohols and oxidized to acids. Two common aldehydes are formaldehyde and acetylaldehyde.

*everyscience.com/Chemistry/Glossary/A.php*

Molecule/functional group of generic type RHC=O, where R is a carbon chain of some sort.

*oldnc.3dn.ru/Docs/Harper.C.A.Plastics\_Materials\_and\_Proc-s.pdf*

Aldehydes are substances that are characterized by the presence of a CHO radical. The simplest aldehyde is formaldehyde, HCHO. They are volatile liquids with sharp, penetrating odors that are slightly less soluble in water than corresponding alcohols. Aldehydes are widely used in industry as chemical building blocks in organic synthesis.

*schools.look4.net.nz/science/chemistry/index/index\_html*

An aldehyde is an organic compound with a carbon bound to a -(C=O)-H group. Examples are formaldehyde (HCHO), acetaldehyde, CH<sub>3</sub>CHO, and benzaldehyde, C<sub>6</sub>H<sub>6</sub>CHO.

*Whittington's Dictionary of Plastics, by James W. Carley*

A generic term for organic compounds containing a double-bonded oxygen and hydrogen bonded to the same terminal carbon atom of the molecule, i.e. the —CHO group. Thus they may be represented by the general formula RCHO. The simplest one is formaldehyde, HCHO, in which R is hydrogen. For all others, R represents a hydrocarbon radical.

## **Aldehyde leather, Aldehyde-tanned leather**

*Mijnwoordenboek*

washable leather, which in its natural state is white, prepared usually from sheep or lamb skin splits or degraains and tanned with formaldehyde

*Nald.nal.usda.gov*

Washable leather, which in its natural state is white, prepared usually from sheep or lamb skin splits or degraains and tanned with formaldehyde or other aldehydes.

*Wikipedia*

Aldehyde-tanned leather is tanned using glutaraldehyde or oxazolidine compounds. This is the leather that most tanners refer to as wet-white leather due to its pale cream or white color. It is the main type of "chrome-free" leather, often seen in shoes for infants, and automobiles. Formaldehyde tanning (being phased out due to its danger to workers and the sensitivity of many people to formaldehyde) is another method of aldehyde tanning. Brain-tanned leathers fall into this category and are exceptionally water absorbent. Brain tanned leathers are made by a labor-intensive process which uses emulsified oils, often those of animal brains. They are

known for their exceptional softness and their ability to be washed. Chamois leather also falls into the category of aldehyde tanning and like brain tanning produces a highly water absorbent leather. Chamois leather is made by using oils (traditionally cod oil) that oxidize easily to produce the aldehydes that tan the leather to make the fabric the color it is.

### **Aldehyde resin**

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

Synthetic resin made by treating various aldehydes with condensation agents. Phenol, Urea, aniline and melamine react readily with aldehydes, such as formaldehyde.

### **Aldehyde tannage, Aldehyde tanning**

*aliendesigner.synthasite.com/resources/Manual of Leather Goods.pdf*

Aldehyde tanning is used to produce very soft white washable leathers usually from sheep or lamb skin with the grain split or shaved off. The leathers so produced are used for water washable gloves and clothing.

*healsfang.com/infoleatherterms\_a.html*

Tannage with an aldehyde, such as glutaraldehyde or modified glutaraldehyde, usually in combination with other tanning materials.

### **Alençon, Alençon lace**

*antique vintage dictionary*

French needlepoint lace comprising a floral design on a sheer net background. French version of the luxurious and popular 17th century Venetian needle lace.

*Beloved linens*

This, the most elaborate needle-point lace which has ever been produced in France, was first made in about 1665

*Britannica*

needle lace made in the French city of Alençon, one of the centres designated by Jean-Baptiste Colbert, minister of finance under Louis XIV, for aid in his effort to make French laces financially and artistically competitive with imported laces. Venetian workers, experts in making *point de Venise*, were brought in to instruct the local needlewomen, who quickly learned the technique and, by the end of the Royal Monopoly (*see* point de France), were evolving a distinctive lace. Alençon lace is characterized by a cordonnet usually made over horsehair, a firm needle mesh of double twisted threads, and many and varied filling stitches within floral and scroll patterns.

*chinese dolls glossary*

Needlepoint lace outlined with cord.

*fibre2fashion*

a needlepoint lace on a fine net ground characterized by a heavy thread (cordonnet) outlining the design. Usually machine made but sometimes the cordonnet is inserted by hand.

*haute couture jargon*

needlepoint lace; swags and flowers, from Alençon, Normandy France.

*Housefabric*

A French needlepoint lace with a floral design on a sheer net background. With or without beads and sequins.

*Lacefairy*

Alençon Lace is a fine needlepoint lace made of linen thread. It took its name from the French town of Alençon in Normandy France, where it was developed by Marthe Laperriere. As a local needlewoman, she attempted to faithfully reproduce Venetian lace, which was in high demand at that time. She was inspired to improve upon the Venetian lace and with her help

the unique Alençon lace was developed. Another innovation credited to her was the division of lacemaking tasks which allowed women to specialize in particular aspects of the work thus working faster and better. In 1665, the Minister of France, Colbert, attempted to stem the flow of imported Italian Lace and created the Royal Lace Manufactory in Alençon. He wanted Lace to become a direct copy of the Venetian Lace, still being imported at great expense, and brought 20 Italian Lace makers into town to teach secrets of their famous Lace to local women. The women of Alençon had a difficult transition, as the techniques of Venetian Lace were more difficult. The new Lace became known as point de France. Technically more demanding, this new Lace improved the skills of local women and when the making of Alençon lace resumed, its quality was magnified.

*Leksikon Bartol Impex d.o.o.*

Čipka izrađena iglom, pomalo grubih, naglašanih, reljefnih motiva na mrežastoj podlozi, obrubljena težom svilenom vrpcom poznatom kao "gimp".

*Library*

A needlepoint lace on a fine net ground characterized by a heavy thread (cordonnet) outlining the design. Usually machine made but sometimes the cordonnet is inserted by hand.

*Wikipedia*

Alençon lace or point d'Alençon is a needle lace originating from the town of Alençon, France. The style is sometimes called the "Queen of lace." Lace began being manufactured in originated in Alençon in the 16th century. The local industry was promoted by Jean-Baptiste Colbert, during the reign of Louis XIV, who established a Royal Lace Workshop there, to produce a product influence by the Venetian style. This soon emerged as a unique style, directly associated with the town. Though the style went into decline following the French Revolution, it regained prominence in the 19th century, both in France and the United Kingdom. In 1976, the National Alençon Lace Workshop was established to ensure that the lace-making techniques of the town survive. There is a permanent exhibition of Alençon lace and exhibits showing how it is made in the Musée des Beaux Arts et de la Dentelle in the town centre.

## **Alepine**

*Associated content*

Alepine is a fabric mixed with wool and silk or mohair (Fabric made with yarn made from the silky hair of the Angora goat) and cotton fabric.

*fabric names*

mixed wool and silk or mohair and cotton fabric

*Norwich textiles*

a silk warp with a worsted weft threaded to a four end broken twill, similar to sattinet.

## **Alexandria**

*Texmachinery*

The name probably derived from the very early silk and wool fabrics, made in the ancient city of Alexandria, which featured small designs such as flowers and scrolls. Fine, lightweight dress fabric made of cotton and wool with a small woven design. It gathers well. Used for blouses, dresses and children's clothes.

## **Alexis**

*Dry goods*

A style of fur cap for men, distinguished by the crown being made long and deep so that it may be pulled down over the ears and neck, and finished without roll or vizor.

### **Alfa, Alfa fibre**

*mijnwoordenboek.nl/definition/fa*

fibre obtained from the leaves of *Stipa tenacissima*

*Tintoriavago.com*

Extracted from the long leaves of a herbaceous grass of the subdesert regions of North Africa.

### **Algaecide, Algicide**

*pcimag.com/Articles/Feature\_Article/BNP\_GUID\_9-5-2006\_A\_1000000000000597851*

Chemical agents used to destroy algae. Algae are chlorophyll-containing plants whose green color is often masked by a brown or red pigment. Representative compounds include gluteraldehyde, methylenebis (thiocyanate), quaternary ammonium compounds and zinc oxide.

*poolcenter.com/pnlingo.htm*

Algaecides perform best as a backup to a routine sanitation program. They also help to kill airborne spores as they blow into the pool. A variety of algae treatment products are available including copper and silver compounds, poly-quat compounds, chlorine enhancers , and herbicides.

*Technical centre*

Kills algae.

*Wikipedia*

An algaecide or algicide is a substance used for killing and preventing the growth of algae.

### **Algerian fibre**

*Conservation of furniture*

Algerian fibre is obtained from the lives of palm grass *Chamareops bumilus* which grows in Northern Africa and Southern Spain. The leaves are shredded and curled in a manner similar to hair. It is imported as rope and unwound at a fibre processing plant. The green fibre may be dyed black to achieve sterilisation (probably because of the increase in temperature during dyeing). It is coarser than hair and best suited as a first filling. It has good resilience over a long period.

*Upholsterers*

A type of fibre used in bedding or upholstery. Palm leaves which are shredded into filaments, dried, and curled, come into this country in the form of rope. Its natural colour is green, but it is boiled and dyed black to repel mites.

### **Algin**

*Naldr.nalusda.gov*

Algin. A mucilaginous material obtained from dried sea-weed. The weeds are washed thoroughly to remove inorganic matter and are then dissolved in a boiling solution of caustic soda. This forms a thick jellylike alkaline salt and, from this salt, by the addition of acid, the algin is precipitated. Algin is used as a leather-finishing material.

*visagedelayla.com/glossary/index.php*

Derivative of algae used for skin lubricity and for improving emulsion stability.

*Weavers.org.uk*

An extract from certain algae or seaweed. Sodium alginate, a gummy nitrogenous organic compound used as a size for finishing cotton cloth or as a thickener in textile printing pastes. Alginic acid is extracted from algin, neutralized with caustic soda to form a spinning solution from which filament alginate yarns can be produced. Alginate yarns are soluble and non-flammable and have a low wet strength. Filament or staple alginate fibre can be blended with other fibres in the production of sheer fabrics where the alginate fibre is washed away to leave

a sheer web of the supporting fibre. This is done when it would not be possible to spin a yarn from the supporting fibre alone. When areas of other fibres are embroidered onto 100% alginate woven fabric backing, the backing can be dissolved away leaving the embroidered area. This creates a lace effect. Latin: alga, seaweed. PVA (poly-vinyl alcohol) filament has now replaced algin in the production of soluble yarns.

## **Alginate, Alginate thickener**

### **Alginat**

*Branka Andričić: PRIRODNI POLIMERNI MATERIJALI (Priručnik), Split 2009*

Amonijeve i metalne soli alginске kiseline nazivaju se alginati. Alginati se dobivaju u iskoristivim količinama (30-40% suhe tvari) samo iz velikih algi i trava (*Laminariales* i *Fucales*). Soli jednovalentnih kationa lako se otapaju u hladnoj vodi, dajući viskozne otopine pri niskim koncentracijama (Na-alginat), a soli dvovalentnih kationa su netopljive u vodi jer stvaraju netopljive komplekse (slika 13). Izmenu  $Ca^{2+}$  iona i karboksilne skupine nastaje koordinativna veza. Pri tom nastaje trodimenzijska mreža sastavljena od dugih lanaca Msegmenata i čvorišta nastalih izmenu kalcija i G-segmenata alginске kiseline.

Tako se npr. Ca-alginat koristi se za proizvodnju zavoja za velike rane i opekline gdje je uobičajeni zavoj vrlo teško (i bolno) odstraniti. Ispod mreže alginatnog zavoja stavljenog na ranu stvara se krasta, a zavoj se odstrani otopinom natrijevog klorida, jer netopljivi Ca-alginat prelazi u topljivi Na-alginat. Na istom principu temelji se i imobilizacija mikroorganizama (npr. kvasca) ili enzima na alginatu u biotehnološkim procesima. Postupak se sastoji u sljedećem: u otopinu Na-alginata doda se kvasac ili odreneni enzim te dokapava u otopinu  $CaCl_2$ . Pri tome nastaju kuglice netopljivog Ca-alginata unutar kojeg se nalaze zarobljene stanice kvasca ili molekule enzima.

Nadalje, alginati se primjenjuju kao zgušnjavala u industriji bojila za tekstil, za printersku tintu, u kozmetici, farmaceutskoj industriji, u prehrambenoj industriji kao stabilizator, želirajući agens i emulgator. Alginati vežu teške metale; npr. olovo i drugi teški metali prije će se vezati nego natrij, kalij i lakši metali, tako da se alginati upotrebljavaju kod trovanja olovom i stroncijem-90.

*Dharmatrading.com*

A seaweed derivative used as an anti-migrant. High-viscosity alginates are normally recommended for cottons; low-viscosity alginates are recommended for silk fibers, when trying to achieve finer lines.

*dyeman.com/Glossary.htm*

Naturally occurring substance found only in sea weed. Sodium Alginate is principal product, which dissolves in water to form a viscous solution.

*Glossary of Printing Terms, By Aatcc*

A class of polymeric compounds obtained from seaweed. The sodium salt is water soluble and used as a thickener in printing and dyeing. The material can be insolubilised to make binders or synthetic fibres. It does not react with fibre-reactive dyes.

## **Alginate fibre**

*Ca-bc.com/zip\_internacional/usedmach/education/*

Fiber formed from a metallic salt (normally calcium) of alginic acid, which is a natural polymer occurring in seaweed. Alginate fiber is soluble in water. Trade name - Calcium alginate

*higheredbcs.wiley.com/legacy/college/nielson/0471606405/supplementary/Decorative\_and\_Support\_Fabrics\_Glossary.pdf*

Alginate acid neutralized with caustic soda, spun or extruded. Combined with other fibers then dissolved with an acid bath, the result is a nonflammable fiber used for very sheer wool textiles and lace.

*Polymer science dictionary, by Mark. s.m. Alger, Google books*

Generic name for a fibre based on metallic salts of alginic acid. The fibres are produced by wet spinning of sodium alginate into a solution of the metal salt, usually calcium chloride, thus producing a water-insoluble metal alginate fibre. The fibres are fire-resistant, but are swollen, or dissolve, in alkaline solutions.

*poslovni-savjetnik.com/propisi/tehnicki-zahtjevi-za-proizvode-i-ocjena-sukladnosti/pravilnik-o-sirovinskom-sastavu-i-nazivi*

Vlakno dobiveno iz metalnih soli alginске kiseline

*resil.com/c.htm*

Fibres and filaments formed from a metallic salt of alginic acid, the natural polymer in certain seaweeds. Fibres and filaments formed from a metallic salt of alginic acid, the natural polymer in certain seaweeds. Calcium alginate fibre, owing to its solubility in soapy water, find use as a blend component in making very fine, woollen cloth. Extremely fine worsted yarns are blended with seaweed fibres to give them extra strength to withstand weaving, after which the cloth is washed in soapy water, when the seaweed dissolves, resulting in a fine woollen cloth, easily packed, warm, crease-resistant, weighing even as little 50 g/m

*Textile dictionary*

Characteristics: Alginate was first produced from seaweed in 1940. It is a product of a neutralizing reaction between alginic acid and caustic soda. It is non-flammable. When combined with other fibres, it takes on a sheer appearance.

Uses: Garnishing, camouflage and netting.

## Alginate acid

### Alginska kiselina

*Branka Andričić: PRIRODNI POLIMERNI MATERIJALI (Priručnik), Split 2009*

Alginska kiselina prirodni je hidrofilni koloidni polisaharid, opće formule  $(C_6H_8O_6)_n$  dobiven iz različitih velikih smenih morskih algi (*Phaeophycota*), gdje je sastavni dio stanične membrane. To je linearni kopolimer D-manuronske kiseline vezane  $\beta$ -1,4 vezama (M segmenti) i L-guluronske kiseline vezane  $\alpha$ -1,4 vezama (G segmenti). Monomeri su obično povezani u homopolimerne blokove odvojene područjima s alternirajućim sekvencama dvaju kiselih monomera. Udio pojedinih monomera ovisi o vrsti alge.

## Algorithm

*cadterns.com/\_ReadingRoom/Glossary%20081009.pdf*

A procedure for solving a mathematical problem (as of finding the greatest common divisor) in a finite number of steps that frequently involves repetition of an operation

*icknowledge.com/glossary/a.html*

technique or method of performing a mathematical calculation. An algorithm will typically have a finite number of steps that are repeated to perform a calculation.

*Ndt-ed.org*

A set of steps for solving a specific problem. Algorithms can be expressed in many ways but are commonly expressed as one or more mathematical equations.

*Wikipedia.org*

In mathematics, computing, linguistics, and related subjects, an **algorithm** is a finite sequence of instructions, logic, an explicit, step-by-step procedure for solving a problem, often used for calculation and data processing and many other fields. It is formally a type of effective method in which a list of well-defined instructions for completing a task, will when given an

initial state, proceed through a well-defined series of successive states, eventually terminating in an end-state. The transition from one state to the next is not necessarily deterministic; some algorithms, known as probabilistic algorithms, incorporate randomness.

### **Alhambra quilt**

*Dictionaryoftext00*

Bleached cotton quilt, made with bold patterns, formed by an extra warp, which is heavier than the ground warp. The ground is usually woven plain, with a heavy, slack twist filling.

*resil.com/c.htm*

A jacquard figured fabric with a plain ground weave that requires two warps. A jacquard figured fabric with a plain ground weave that requires two warps. The figuring warp is usually two-ply and coloured, the ground warp singles and undyed. The weft is often made on the condenser system, soft spun and of coarse count.

### **Alice band**

*Canadadigital.com*

A band worn across the front of the top of the head holding hair from the face. Named after Alice (Alice in Wonderland) from Lewis Carroll's classic book Through the Looking Glass.

*Wikipedia.org*

Horseshoe-shaped headbands are sometimes called Alice bands after the headbands that Alice is often depicted wearing in Through the Looking Glass.

### **Alignment layer**

#### **Sloj za poravnavanje**

*Glossary.html*

A layer and/or surface treatment applied to the boundary of a liquid crystal cell to induce a particular director orientation. For example, a layer of polyimide buffed in one direction induces alignment parallel to the buffing direction, or a surfactant may be polymerized on a boundary surface to induce perpendicular alignment.

### **Alignment pin, Steady pin**

#### **Zatik za centriranje**

*struna\_knj\_14\_strelementi\_04(1381).pdf – Foxit Reader*

**Zatik koji je pričvršćen za jedan dio te ulazi u provrt u drugome dijelu čime se osigurava točan međusoban položaj dijelova. Zatici služe za spajanje, učvršćenje, potezanje, držanje, centriranje, fiksiranje, osiguranje, zatvaranje i sl. strojnih dijelova.**

### **Aliphatic hydrocarbons**

*Alken.murray.com/fuel.glossary.htm*

A class of saturated or unsaturated carbon compounds, in which the carbon atoms are joined in open chains.

*everyscience.com/Chemistry/Glossary/A.php*

As opposed to aromatic, applies to carbon chains.

*finishwiz.com/definitions.htm*

A class of organic solvents which are composed of open chains of carbon atoms. Aliphatics are relatively weak solvents. Mineral spirits, paint thinner, VM&P naphtha, Stoddard Solvent, petroleum naphtha, petroleum distillate, cyclohexane, octane, pentane, nonane, kerosine, gasoline, and heptane, propane, butane, hexane are all aliphatic hydrocarbons.

*fire.org.uk/glossary.htm*

One of the main groups of hydrocarbons characterised by the straight or branched chain arrangement of constituent atoms. Aliphatic hydrocarbons belong to three subgroups: (1) alkanes or paraffins, all of which are saturated and comparatively unreactive, (2) the alkenes

or alkadienes which are unsaturated (containing double [C=C] bonds) and more reactive, and (3) alkynes, such as acetylene (which contain a triple [C≡C] bond).

*microspecorporation.com/technical\_glossary.php*

A polymer composed of hydrogen and carbon that does not contain aromatic rings. The carbons can be joined in chains, branched chains or nonaromatic rings. Examples are ethylene and acetylene. See Aromatic compound.

*Naftni rječnik – Perić*

Ugljikovodici s ugljikovim atomima vezanim u obliku lanca (za razliku od prstenaste strukture aromatskih ugljikovodika). Prema jednoj klasifikaciji su jedna od dviju skupina ugljikovodika (s aromatskim ugljikovodicima) i dijele se na alkane (alkanes), alkene (alkenes), alkine (alkynes) i alicikličke (cikličke alifatske) ugljikovodike (alicyclic hydrocarbons), dok prema drugim klasifikacijama aliciklički ugljikovodici čine zasebnu skupinu.

*Proplasticsinc.com*

derived from or related to fats and other derivatives of the paraffin hydrocarbons, including unsaturated compounds of the ethylene and acetylene series.

*schools.look4.net.nz/science/chemistry/index/index\_html*

An organic compound that does not contain ring structures.

## **Aliphatic polymers**

### **Alifatski polimeri**

*Introduction to polymer sciency and technology, by Mustafa Akay*

In aliphatic polymers (e.g. PE and polyvinyl chloride) the elements along the backbone chain are arranged in a linear manner

## **Aliphatic solvent**

### **Alifatsko otapalo**

*Carpet glossary*

A non-polar dry solvent classification that includes solvents produced by refining petroleum products e.g., odorless mineral spirits.

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

Hydrocarbon solvent composed primarily of paraffinic and cycloparaffinic (naphthenic) hydrocarbon compounds with an aromatic hydrocarbon content, which may range from less than 1% to about 35%.

*etfinancial.com/coatingsgloss.htm*

A solvent comprised primarily of straight chain hydrocarbons, including mineral spirits, kerosene, and hexane. These solvents are characterized as volatile organic compounds.

*Glossary of Paint and Coatings Terminology, M. Pavlič, Ljubljana 2002.*

A solvent comprised primarily of straight chain hydrocarbons, including mineral spirits, kerosene and hexane. These solvents are characterised as volatile organic compounds.

## **Aliphatics**

### **Alifatski spojevi**

*Glossary of Paint and Coatings Terminology, M. Pavlič, Ljubljana 2002.*

Non-aromatic straight-chain or branched hydrocarbons. When aliphatic constituents are introduced in film-forming polymers used in coatings, an improvement of certain characteristics of the dried film (such as light fastness) is normally observed, while drying time may be increased.

## **Aliquot**

*Chem.ubc.ca*



A *portion* or *sample* of a solid or liquid substance. For example, if you squeeze an orange and get 300 mL of juice, and then take 25 mL of the juice to analyze for Vitamin C content, the 25 mL portion is known as an aliquot.

*Environmental Engineering Dictionary, edited by C. C. Lee*

A measured portion of a sample taken for analysis. One or more aliquots make up a sample.  
[oncoreuk.org/pages/info\\_glossary.html](http://oncoreuk.org/pages/info_glossary.html)

A small volume of a sample (usually liquid) that has been separated from a larger sample. Aliquots are typically stored in separate containers as individual samples.

## **Alizarin**

*Alcollector*

An orange or red crystalline compound formerly prepared from madder and now made synthetically. Used especially to dye Turkey reds and in making red pigments.

*Analysis of Woven Fabrics, by A F and E Midgley Barker*

A dye of coal-tar origin largely employed in the place of indigo for the production of navy blues and blacks.

*Dry goods*

[From al-i-za-ri, the commercial name of madder in Asia] A peculiar red coloring matter formerly obtained from the madder plant [see Turkey Red]. At present alizarin is an artificial madder-dye obtained from coal-tar, and which in point of commercial importance far exceeds any of the other 400 shades of colors derived from that source. [See Dyeing, Calico-Printing]

*Free dictionary*

An orange-red crystalline compound,  $C_{14}H_6O_2(OH)_2$ , used in making dyes.

## **Alizarine dye**

*Britannica*

red dye originally obtained from the root of the common madder plant, *Rubia tinctorum*, in which it occurs combined with the sugars xylose and glucose. The cultivation of madder and the use of its ground root for dyeing by the complicated Turkey red process were known in ancient India, Persia, and Egypt; the use spread to Asia Minor about the 10th century and was introduced into Europe in the 13th.

*Naldr.nal.usda.gov*

Alizarine Dyes. A group of dyes derived from anthraquinone. They are usually applied to leather dissolved sodium dichromate, are made more soluble by the addition of borax, and are fixed upon the fiber by means of an acid. Alizarine colors are very color-fast and penetrate deeply into the leather.

*resil.com/c.htm*

The essential colouring matter of the madder root The essential colouring matter of the madder root, now produced artificially from anthracene, a coal-tar derivative. Used successfully on wool, but the popular colour Turkey red is an example of its use on cotton. This red is brilliant and resistant to sun and washing.

## **Alkali**

### **Alkaliya, Baza, Lužina**

*carpetbuyershandbook.com/carpet-glossary/glossary-a/*

A term that should more properly be restricted to the hydroxides and carbonates of sodium and potassium. Phosphates such as trisodium and silicates such as metasilicate are also commonly considered as alkalis. Any soluble chemical substance that forms soluble soaps when mixed with fatty acids. Alkalis also are referred to as bases, and they may cause severe skin burns. Alkalis turn litmus paper blue and have pH values that are above seven (7).

*Ec.gc.ca*

Any strongly basic substance of hydroxide and carbonate, such as soda, potash, etc., that is soluble in water and increases the pH of a solution.

*Energy21*

A base which is soluble in water. They are usually metal hydroxides eg. sodium hydroxide, but ammonia solution is also an alkali.

*Glossary of Paint and Coatings Terminology, M. Pavlič, Ljubljana 2002.*

Any substance that neutralizes acids. Alkalis are helpful in aqueous cleaning by speeding soil removal and suspension.

*Interwork.sdsu*

A water solution containing more hydroxide ions than hydrogen ions. Bases or alkaline solutions have a pH greater than 7. They taste bitter and turn litmus paper blue.

*Naftni rječnik – Perić*

U kemiji – svaka izrazito alkalična supstancija, kao što su hidroksidi i karbonati alkalijskog metala (npr. natrija, kalija).

*Proplasticinc.com*

compounds capable of neutralizing acids and usually characterized by an acid taste. Can be mild like baking soda or highly caustic like lye.

*Solvay.com*

Family of products derived from alkali metals, including compounds such as sodium carbonate and caustic soda.

*The-powe-washer-advisor.com*

An alkali is a chemical substance that has a pH above 7 (also called "base"). The higher the pH of an alkali, the stronger the chemical is (or more "caustic"). Alkalis are often called detergent builders and are the major active ingredient in most detergents, especially powdered products. The level of alkalinity in a detergent solution is often considered the true measure of a detergent's strength.

### **Alkali-cellulose**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

The product formed by steeping wood pulp with sodium hydroxide, NaOH. It is the first step in the manufacture of cellulose derivatives, such as rayon.

*Answers.com*

Product of wood pulp steeped with sodium hydroxide; first step in manufacture of viscose rayon and other cellulose derivatives.

*fibre2fashion*

the product of the interaction of strong sodium hydroxide with purified cellulose. note: in the manufacture of viscose fibres, the cellulose may be cotton linters or wood-pulp. After pressing, alkali-cellulose usually contains approximately 30% of cellulose and 15% of sodium hydroxide, the remainder being water. During the steeping of the cellulose in sodium hydroxide (18-20% w/w) to form the alkali-cellulose, soluble impurities, including soluble cellulose are removed.

*hainsworth.co.uk/textile-glossary/*

The product of the interaction of strong hydroxide (caustic soda) with purified cellulose. In the manufacture of viscose rayon, the cellulose may be cotton linters or wood pulp. After pressing, alkali-cellulose usually contains approximately 30% of cellulose and 15% of sodium hydroxide, the remainder being water. During the steeping of the cellulose in sodium hydroxide (18-20% w/w) to form the alkali-cellulose, soluble impurities, including soluble cellulose, are removed.

*Polymer science dictionary, by Mark. s.m. Alger, Google books*

The „complexes“ obtained by treating cellulose with aqueous sodium hydroxide, consisting mostly of soda cellulose II. Used as an intermediate in the preparation of the cellulose xanthate and various cellulose ethers.

### **Alkali insoluble matter**

*ic30.icconsulting.com.au/awi/en/Tools/glossary/*

The oven-dry, ash-free, ethanol-extractive-free, alkali-insoluble matter present in a wool sample (expressed as a percentage of the mass of the test specimen. It comprises vegetable matter together with any skin, dags, pack material, string, paper and lime).

*merinoinnovation.com/awi/en/Tools/glossary/*

The oven-dry, ash-free, ethanol-extractive-free, alkali-insoluble matter present in a wool sample (expressed as a percentage of the mass of the test specimen. It comprises vegetable matter together with any skin, dags, pack material, string, paper and lime).

### **Alkali metal**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

Any of the elements of Group IA, which form highly alkaline solutions in water and burn vigorously in air. They all have a valance of one, and are softer and less dense than other metals. Included are the elements lithium, sodium, potassium, rubidium, cesium and francium.

### **Alkali resistance**

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

The ability of a plastic material to resist the effects of an alkali, including alkaline materials, such as lime, cement, plaster, soap and aqueous alkaline solutions.

### **Alkali solubility**

*Analytical methods for a textile laboratory, By J. W. Weaver, Google books*

Two standard methods are in wide use. In one, the reagent is the 0,05N sodium carbonate used at the boil for 40 min. In the other, 0,1N sodium hydroxide is used at 65<sup>0</sup>C for 1 hour. The alkali solubility of an undamaged wool may range upward from 15% for fine wool and downward to perhaps less than 10% for coarse wool. Alkali treatments and formaldehyde crosslinking procedures produce substantial decrease in alkali solubility, while acid and oxydising treatments increase it.

*Future textiles*

(i) The solubility of wool in sodium hydroxide solution which provides an index of the change in its chemical properties brought about by certain agencies.

(ii) A measure of the amount of non-cellulosic constituents (readily available as food-stuffs for micro-organisms) which is left in commercially boiled flax or so.

### **Alkalimeter**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

An instrument that measures the amount of base in a solution. Used to measure the amount of carbon dioxide liberated from a weighing sample.

*Ian J.McColm: Dictionary of Ceramic Science and Engineering, III Edition*

(1) An apparatus for measuring the amount of carbon dioxide in carbonates. (2) An apparatus for determining the concentration of alkalis in a solution.

### **Alkalimetry**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

An analytical method for determining the basicity of a solution, as by titration with a standard solution of acids.

### **Alkaline**

*aquatext.com/list-a.htm*

A compound which has an excess of hydroxide ions. A substance which combines with acid and neutralises it, forming a salt. pH >7.0

*Ca-bc.com/zip\_internacional/usedmach/education/*

A term used to describe a material having a pH greater than 7.0 in water.

*Naftni rječnik – Perić*

U kemiji – koji ima svojstva alkalije. (b) U kemiji – koji ima pH veći od 7. (c) v. alkali, *tradewindsfruit.com/glossary.htm*

A substance that has a low concentration of Hydrogen ions and conversely has a high concentration of Hydroxyl ions.

### **Alkaline catalysts**

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

Hydroxide of sodium, potassium, lithium and ammonium (or salts derived from these metallic radicals), which exhibit alkaline characteristics. Gaseous ammonia can also be used, as well as a number of basic organic compounds. Important reactions in which alkaline catalysts are involved include the condensation of phenols or urea with formaldehydes.

### **Alkaline cleaner**

*Enviro-solution.com*

A detergent made up in part or wholly with one or more of the alkalies. The term is also applied to a detergent which contains none of the alkalies but which has alkaline properties.

*fortbendcarpetcare.com/Glossary.html*

A cleaner that has a pH higher than 9. This would include all purpose cleaners, degreasers and strippers.

*intota.com/experts.asp?strSearchType=all&strQuery=alkaline+cleaner*

A cleaner composed of a mixture of alkali hydroxides and alkaline salts.

*tileandstonecare.co.uk/glossary\_of\_common\_terms\_tiles\_stone\_groutcare.asp*

Cleaning solution based on alkaline chemicals. Used for deep cleaning of organic contamination e.g. grease, grime, general dirt. Will also remove or at least 'dull' some surface polishes or coating sealers

### **Alkaline-earth metal**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

Any of the elements of the Group IIA, which are divalent and strongly basic (though less so than the alkali metals). These include beryllium, magnesium, calcium, strontium, barium and radium. Some classifications do not include beryllium, and may also omit magnesium.

### **Alkaline salts**

*dictionary.die.net/alkaline salt*

a salt which gives an alkaline reaction, as sodium carbonate.

*plrb.org/education/PTR/Cleaning\_Structure/CS0270.htm*

Materials (trisodium phosphate, sodium carbonate, sodium metasilicate, sodium tripolyphosphate, tetrasodium pyrophosphate) that are used alone or with surfactants to increase "detergency" in fabric and hard surface cleaning compounds.

## **Alkalinity**

*Boulder.co*

Alkalinity is a measure of the buffering capacity of water, or the capacity of bases to neutralize acids. Measuring alkalinity is important in determining a stream's ability to neutralize acidic pollution from rainfall or wastewater. Alkalinity does not refer to pH, but instead refers to the ability of water to resist change in pH. The presence of buffering materials help neutralize acids as they are added to the water. These buffering materials are primarily the bases bicarbonate ( $\text{HCO}_3^-$ ), and carbonate ( $\text{CO}_3^{2-}$ ), and occasionally hydroxide ( $\text{OH}^-$ ), borates, silicates, phosphates, ammonium, sulfides, and organic ligands.

*carpetbuyershandbook.com/carpet-glossary/glossary-a/*

The property of water soluble substances that cause the concentration of hydroxyl ions ( $\text{OH}^-$ ) in water based solutions to be higher than the concentration of hydrogen ions ( $\text{H}^+$ ). soap is mildly alkaline and detergents may be formulated with any desired degree of alkalinity.

Denotes values above, but not including, seven (7) on the pH scale.

*Carpetlossary*

The property of water soluble substances that cause the concentration of hydroxyl ions ( $\text{OH}^-$ ) in water based solutions to be higher than the concentration of hydrogen ions ( $\text{H}^+$ ). soap is mildly alkaline and detergents may be formulated with any desired degree of alkalinity.

Denotes values above, but not including, seven (7) on the pH scale. See alkaline builders.

*Chemistry & Technology of Fabric Preparation & Finishing, by Dr. Charles Tomasino*

Alkalinity is defined as salts that consume acids. They are the salts formed when a strong base is neutralized by a weak acid e.g sodium acetate. Fabric preparation is a source of problems associated with alkalinity. Mercerized, causticized and caustic scoured fabrics are neutralized with acetic acid to control the final fabric pH. If the amount of NaOH left on the cloth varies when it reaches the acetic acid bath, the amount of sodium acetate formed by the neutralization reaction will also vary even though the fabric pH appears to be consistent. Alkalinity and buffers consume acid catalyst, therefore both must be consistently controlled to give consistently performing finished fabric. Fabric alkalinity can be determined analytically. If this value is inconsistent throughout the fabric, one can expect inconsistent performance of the finish.

*Dyplastproducts.com*

The quality of a material to be basic or alkaline when exposed to moisture or water producing a blue reaction to litmus paper. A pH over 7. Insulation that creates an basic (alkaline) acidic environment when exposed to water can contribute to corrosion of the system. Dyplast's polyisocyanurate and expanded polystyrene products do not react with water, creating neither a basic nor acidic environment; therefore they do not contribute to corrosion. ASTM C871 provides the methodology for the determination of water-leachable chloride, fluoride, silicate, and sodium ions in thermal insulation materials.

*Environmental Engineering Dictionary, edited by C. C. Lee*

(1) The measurable ability of solutions or aqueously suspended solids to neutralise an acid.

(2) The capacity of water to neutralise acids, a property imparted by the water's content of carbonates, bicarbonates, hydroxides, and occasionally borates, silicates and phosphates.

Natural waters are generally neutral, or slightly alkaline. The alkalinity of water may range from a few milligrammes per litre to several hundreds. Domestic sewage is slightly more

alkaline than the water from which it is derived. Alkalinity is expressed in milligrammes per litre of equivalent calcium carbonate. (3) The capacity of bases to neutralise acids.

*Portatreatment*

Anything having a pH greater than 7. All alkalis have a low concentration of hydrogen ions. [schools.look4.net.nz/science/chemistry/index/index\\_html](http://schools.look4.net.nz/science/chemistry/index/index_html)

A measure of a material's ability to neutralize acids. Alkalinities are usually determined using titration.

*Wikipedia*

Alkalinity or AT is a measure of the ability of a solution to neutralize acids to the equivalence point of carbonate or bicarbonate. Alkalinity is closely related to the acid neutralizing capacity (ANC) of a solution and ANC is often incorrectly used to refer to alkalinity. The alkalinity is equal to the stoichiometric sum of the bases in solution. In the natural environment carbonate alkalinity tends to make up most of the total alkalinity due to the common occurrence and dissolution of carbonate rocks and presence of carbon dioxide in the atmosphere. Other common natural components that can contribute to alkalinity include borate, hydroxide, phosphate, silicate, nitrate, dissolved ammonia, the conjugate bases of some organic acids and sulfide. Solutions produced in a laboratory may contain a virtually limitless number of bases that contribute to alkalinity. Alkalinity is usually given in the unit mEq/L (milliequivalent per liter). Commercially, as in the pool industry, alkalinity might also be given in the unit ppm or parts per million.

## **Alkane**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

Any of various aliphatic hydrocarbons that have the general formula  $C_{16}H_{2n+2}$ . The first (lightest molecular weight) four are gases, higher members are liquids and those above  $C_{16}H_{34}$  are waxy solids.

[composite.about.com/library/glossary/a/bldef-a276.htm](http://composite.about.com/library/glossary/a/bldef-a276.htm)

The generic term for saturated hydrocarbons which contain only carbon and hydrogen.

Alkanes can be represented by the general formula  $C_nH_{2n+2}$ . The first member of the alkane series is methane,  $CH_4$ .

[everyscience.com/Chemistry/Glossary/A.php](http://everyscience.com/Chemistry/Glossary/A.php)

A simple saturated hydrocarbon chain.

[fire.org.uk/glossary.htm](http://fire.org.uk/glossary.htm)

An aliphatic hydrocarbon having the chemical formula  $C_nH_{2n+2}$ . A normal alkane, or n-alkane is one which does not have a branched carbon backbone. An iso-alkane has a branched, rather than a straight chain, carbon backbone. Alkanes are also known as paraffins. The simplest alkanes are named as follows:  $CH_4$  methane,  $C_6H_{14}$  hexane,  $C_2H_6$  ethane,  $C_7H_{16}$  heptane,  $C_3H_8$  propane,  $C_8H_{18}$  octane,  $C_4H_{10}$  butane,  $C_9H_{20}$  nonane,  $C_5H_{12}$  pentane and  $C_{10}H_{22}$  decane

*Naftni rječnik – Perić*

Zasićeni alifatski ugljikovodici (saturated aliphatic hydrocarbons). Ugljikovi atomi tvore zasićene lance bez dvostrukih ili trostrukih veza između njih. Dijele se na tri tipa: (a) normalni alkani (alkani s ravnim lancima, normal alkanes); (b) razgranati alkani (alkani s razgranatim lancima, branched alkanes) i, (c) ciklički alkani (alkani s prstenovima, cyclic alkanes). Članovi alkana viši od (uključivo) heksana su poznati pod nazivom viši alkani. Postoje također brojni izomerni oblici. Prva četiri alkana (metan, etan, propan, butan) jesu plinoviti, sljedeći članovi reda od pentana do heptadekana su tekući, a alkani s 18 i više ugljikovih atoma su kruti. Najjednostavniji član reda je metan. Alkani se prirodno nalaze u

sirovoj nafti (općenito sadrži od 5 do 80% alkana) i prirodnom plinu (sadrži gotovo samo alkane).

[pmfst.hr/online\\_publicacije/SkriptaPOK.pdf](http://pmfst.hr/online_publicacije/SkriptaPOK.pdf)

Zasićeni aciklički ugljikovodici nazivaju se alkanima. Mogu biti ravnolančani ili razgranati.  
[schools.look4.net.nz/science/chemistry/index/index\\_html](http://schools.look4.net.nz/science/chemistry/index/index_html)

A series of organic compounds with general formula  $C_nH_{2n+2}$ . Alkane names end with -ane. Examples are propane (with  $n=3$ ) and octane (with  $n=8$ ).

## Alkene

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

Any of various unsaturated aliphatic hydrocarbons having  $C_{15}H_{2n}$ .

[cartografareilpresente.org/article146.html](http://cartografareilpresente.org/article146.html)

Compounds with general formula  $C_nH_{2n}$  ( $n$  is a whole number, usually from 1 to 20), with linear or branched chain molecules containing one carbon-carbon double-bond. Can be liquid or gas. Examples of the group are ethylene, butene, isobutene

[ch.ic.ac.uk/vchemlib/mol/glossary/](http://ch.ic.ac.uk/vchemlib/mol/glossary/)

These compounds are similar to alkanes, in that they can be straight or branched aliphatic hydrocarbons. The only difference is that the alkenes (also known as olefins) contain a carbon-carbon double bond, and have the general formula  $C_nH_{2n}$ . The simplest group member is ethene which is a gas. The double bond can be anywhere within the length of the carbon chain, resulting in a large number of possible isomers. The double bond means that these compounds are "unsaturated" and react readily with compounds capable of adding across the double bond

[everyscience.com/Chemistry/Glossary/A.php](http://everyscience.com/Chemistry/Glossary/A.php)

A carbon-carbon double bond, or a molecule containing a carbon-carbon double bond.

*Naftni rječnik – Perić*

Nezasićeni alifatski ugljikovodici s jednom ili više dvostrukih veza između ugljikovih atoma. Struktura molekula može biti normalna, razgranata ili ciklička. Prvi član alkena je etilen. Niži članovi reda su plinoviti, srednji članovi su tekućine a najviši članovi su čvrste tvari. Alkeni se prirodno nalaze u maloj koncentraciji u nekim sirovim naftama.

[pmfst.hr/online\\_publicacije/SkriptaPOK.pdf](http://pmfst.hr/online_publicacije/SkriptaPOK.pdf)

Nezasićeni ugljikovodici su spojevi u kojima su atomi vodika povezani višestrukim vezama, spojevi s jednom ili više dvostrukih veza nazivaju se alkenima. Molekulska formula alkena s jednom dvostrukom vezom je  $C_nH_{2n}$ , gdje je  $n$  broj atoma ugljika. Najjednostavniji alken je eten  $CH_2 = CH_2$ .

[schools.look4.net.nz/science/chemistry/index/index\\_html](http://schools.look4.net.nz/science/chemistry/index/index_html)

A compound that consists of only carbon and hydrogen, that contains at least one carbon-carbon double bond. Alkene names end with **-ene**. Examples are ethylene ( $CH_2=CH_2$ ); 1-propene ( $CH_2=CH_2CH_3$ ), and 2-octene ( $CH_3CH=CH_2(CH_2)_4CH_3$ ).

*Wikipedia.org*

In organic chemistry, an alkene, olefin, or olefine is an unsaturated chemical compound containing at least one carbon-to-carbon double bond.[1] The simplest acyclic alkenes, with only one double bond and no other functional groups, form a homologous series of hydrocarbons with the general formula  $C_nH_{2n}$ . [2] The simplest alkene is ethylene ( $C_2H_4$ ), which has the International Union of Pure and Applied Chemistry (IUPAC) name ethene. Alkenes are also called olefins (an archaic synonym, widely used in the petrochemical industry). Aromatic compounds are often drawn as cyclic alkenes, but their structure and properties are different and they are not considered to be alkenes

## **Alkyd**

### **Alkid**

*Glossary of Paint and Coatings Terminology, M. Pavlič, Ljubljana 2002.*

A binder based on resins formed by the condensation of polyhydric alcohols with polybasic acids.

Alkyds may be regarded as complex thermoset polyesters. They are widely used as resins in primers.

### **Alkyd plastics, Alkyd resins**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

A thermosetting polymer made from ethylene glycol or glycerol and a polybasic alcohol, such as phthalic anhydride. It is used as a coating and in various paints.

*ASM materials engineering dictionary, by Joseph R. Davis*

Thermoset plastic based on resin composed principally of polymeric esters in which the recurring ester groups are an integral part of the main polymer chain, and in which ester groups occur in most cross-links that may be present between chains.

*composite.about.com/library/glossary/a/bldef-a280.htm*

Synthetic resins formed by the condensation of polyhydric alcohols with polybasic acids. The most common polyhydric alcohol used is glycerol, and polybasic acid is phthalic anhydride.

Modified alkyds are those in which the polybasic acid is substituted in part by a monobasic acid, of which the vegetable oil fatty acids are typical.

*Dictionary of Ceramic Science and Engineering, By Ian McColm*

Any of a group of thermoplastic resins prepared by the reaction of some polybasic alcohol, such as glycol or glycerin, with dibasic acids or anhydrides, such as phthalic anhydride. Used extensively as adhesives for glass fibres.

*etfinancial.com/coatingsgloss.htm*

A binder based on resins formed by the condensation of polyhydric alcohols with polybasic acids. They may be regarded as complex polyesters (Thermoset)

*hmgpaint.com/help/glossary/*

A type of resin used particularly in decorative gloss paints some (generally lower performance) industrial coatings and inks. It may air dry or to be staved to cure. It is generally solvent borne, but can be used in water born systems.

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

Any of a group of thermoplastic resins prepared by the reaction of some polybasic alcohols, such as glycol or glycerine, with dibasic acids or anhydrides, such as phthalic anhydride, used extensively as adhesives for glass fibres.

### **IRB – Polimerna obrada.pdf**

Alkidne smole su složeni poliesteri dobiveni esterifikacijom polialkohola i dikarbonskih kiselina (najčešće anhidrida ftalne kiseline). Smole na bazi glicerina zovu se glifalne, a na bazi pentaeritrita pentaftalne smole. Premazi alkidnim smolama dobivaju se otparavanjem otapala i reakcijom između komponenata. Alkidni premazi su postojani na atmosferske utjecaje, ali im je otpornost prema kemijskim i mehaničkim djelovanjima osrednja. Premazi su sjajni i glatki. Alkidne smole s ugrađenim atomom metala (npr. Al) grade premaz s povećanom postojanošću u alkalijama i vodi.

*Kreysler.com*

Plastics based on resins composed principally of polymeric esters, in which the recurring ester groups are an integral part of the main polymer chain, and in which ester groups occur in most cross links that may be present between chains.

*.leighspaints.co.uk/Glossary.aspx*

A synthetic resin made by reacting naturally occurring drying oils and other chemicals.

Alkyds can be modified to meet varying requirements on speed of drying, adhesion, flexibility, etc.



[plasticseurope.org/Content/Default.asp?PageID=1067](http://plasticseurope.org/Content/Default.asp?PageID=1067)

Synthetic resins formed by the condensation of polyhydric alcohols with polybasic acids.

### **Alkyl**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

A monovalent hydrocarbon group formed by removing one hydrogen from an alkane.

[answers.com/topic/alkyl](http://answers.com/topic/alkyl)

The radical that results when an aliphatic hydrocarbon loses one hydrogen atom.

[everyscience.com/Chemistry/Glossary/A.php](http://everyscience.com/Chemistry/Glossary/A.php)

A hydrocarbon group e.g. methyl (CH<sub>3</sub>), ethyl (C<sub>2</sub>H<sub>5</sub>) etc.

[medterms.com/script/main/art.asp?articlekey=25537](http://medterms.com/script/main/art.asp?articlekey=25537)

In chemistry, a group of atoms derived from an alkane (a hydrocarbon with no carbon-to-carbon multiple bonds) by the loss of a hydrogen atom.

[oldnc.3dn.ru/Docs/Harper.C.A.Plastics\\_Materials\\_and\\_Proc-s.pdf](http://oldnc.3dn.ru/Docs/Harper.C.A.Plastics_Materials_and_Proc-s.pdf)

Alkyl is a general term for any organic group derived from an aliphatic hydrocarbon by the elimination of one atom of hydrogen, for example, C<sub>2</sub>H<sub>5</sub> (derived from C<sub>2</sub>H<sub>6</sub>).

*Whittington's Dictionary of Plastics, by James W. Carley*

A general term for a monovalent aliphatic hydrocarbon radical, which may be represented as having been derived from an alkane by dropping one hydrogen from the formula. The examples of alkyl groups are C<sub>2</sub>H<sub>5</sub>- (ethyl) and (CH<sub>3</sub>)<sub>2</sub>CH<sub>2</sub>CH- (isobutyl)

[Wikipedia.org](http://Wikipedia.org)

In chemistry, an alkyl group is a hydrocarbon; typically an alkyl is a part of a larger molecule.

The term is usually used loosely; there is no general formula for an alkyl group. In structural formulae, an alkyl group is represented with an R. Usually, alkyl groups resemble

hydrocarbons, but with one less hydrogen atom. The smallest alkyl group is methyl,

### **Alkylation**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

The introduction, by substitution or addition, of an alkyl radical into an organic compound.

*ASM materials engineering dictionary, by Joseph R. Davis*

(1) A chemical process in which an alkyl radical is introduced into an organic compound by substitution or addition. (2) A refinery process for chemically combining isoparaffin with olefin hydrocarbons.

[Ca-bc.com/zip\\_internacional/usedmach/education/](http://Ca-bc.com/zip_internacional/usedmach/education/)

The introduction of an alkyl radical into an organic molecule.

*Encyclopedic dictionary of named processes in chemical technology, by Alen E. Comnis*

Any process whereby an alkyl group is added to another molecule; however, in process chemistry the word is most commonly used to designate a reaction in which an olefin is added to a saturated aliphatic hydrocarbon or an aromatic compound. In the petroleum and petrochemical industries, this term refers to the conversion of a mixture of light olefins and isobutane into a mixture of alkanes suitable for blending into gasoline in order to increase the octane number. An acid catalyst is used. Originally the acid chosen was anhydrous hydrofluoric or sulfuric acid. Proprietary solid acids were introduced in the 1990s which were easier to dispose of. The product is called alkylate. Those alkylation processes having special names which are described in this Dictionary are: Alkar, FBA, Detal, Detergent Alkylate, Mobil-Badger, Stratco, Thoma.

[healsfang.com/infoleatherterms\\_a.html](http://healsfang.com/infoleatherterms_a.html)

Chemical process in which an alkyl radical is introduced into an organic compound by substitution or addition. For example, if the -CH<sub>3</sub> group is introduced the process is defined methylation.

*Wikipedia*

Alkylation is the transfer of an alkyl group from one molecule to another. The alkyl group may be transferred as an alkyl carbocation, a free radical, a carbanion or a carbene (or their equivalents) [1]. Alkylating agents are widely used in chemistry because the alkyl group is probably the most common group encountered in organic molecules. Many biological target molecules or their synthetic precursors comprise of an alkyl chain, with specific functional groups in a specific order. Selective alkylation, or adding parts to the chain with the desired functional groups, is used, especially if there is no commonly available biological precursor. In oil refining contexts, alkylation refers to a particular alkylation of isobutane with olefins. It is a major aspect of the upgrading of petroleum

## **Alkynes**

### **Alkini, Acetileni**

*Nafni rječnik – Perić*

Nezasićeni alifatski ugljikovodici (unsaturated aliphatic hydrocarbons) s trostrukim vezama između ugljikovih atoma. Najpoznatiji članovi niza su acetilen i propin (metil acetilen).

**Sinonimi:** acetylenes, acetylene series of hydrocarbons, alkyne series of hydrocarbons; v. hydrocarbons.

## **All in one**

*haute couture jargon*

cat suit; bodysuit; leotard.

## **All-in-one pantyhose**

*Hosieryassociation.com*

A pantyhose garment which includes a true knitted-in panty, constructed of heavier weight nylon or cotton. Eliminates "panty lines" that can show through clingy knits or tight pants.

*shapings.com/Merchant/merchant.mv?screen=cstm&category=glossary*

A garment that combines both panty and stockings into a one piece waist-high garment that extends above the crotch, but not above the waist, to the toes.

## **All-wool**

### **Čista vuna**

*HAND BOOK ON GLOSSARY OF TEXTILE TERMS, BUREAU OF INDIAN STANDARDS  
NEW DELHI 110 002, UDC 001.4/677 (021) ISBN 81-7061-009-5*

A textile material comprising wool fibres only subject to the tolerances given below :

- 1) Manufacturing tolerance up to 3 per cent of inadvertent impurities, and
- 2) An allowance up to 5 percent of material other than wool fibres used to provide a decorative or ornamentation effect.

Note 1 - All reference to the percentage content means percentages by mass calculated from the mass of materials when in standard condition, namely, their oven dry mass plus the appropriate regain.

Note 2 - In all cases the more detailed description of the contents of the material shall be given by indicating the percentages of the wool and other fibres in descending order used in the manufacture of the textile material. However, such a description should not be misleading.

## **Allergen**

## **Alergen**

*Environmental Engineering Dictionary, edited by C. C. Lee*

(1) The substance capable of causing an allergic reaction because of the individual's sensitivity to the substance. (2) A substance that causes an allergic reaction in individuals sensitive to it.

## **Alligator grained leather, Alligator skin**

*Leather.webindia.com*

This term is used to distinguish the alligator grain effect, which is embossed on various types of leather, such as calf, sheep, or cattlehide from the genuine reptilian leather.

*Rotaltes*

A design, printed or embossed, that suggests the characteristic texture of an alligator.

*The American Leather Chemist Association Dictionary*

Leathers of various types, such as calf, sheep, or side, embossed to resemble the grain of alligator hide.

## **Alligatoring**

### **Naboranost**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

The condition of paint, varnish or similar coating material that has developed cracks and lines from incorrect application or the effects of the elements.

*ASM materials engineering dictionary, by Joseph R. Davis*

Pronounced wide cracking over the entire surface of a coating, having the appearance of alligator hide.

*finishwiz.com/definitions.htm*

A form of paint failure in which cracks form on the surface layer only. It is caused by the application of a hard drying paint over a relatively soft paint or by the application of thick films, in which case the underlying surface remains relatively soft. It is also caused by the application of paint over unseasoned wood. As the name implies, an alligatored surface is one that resembles the hide of an alligator in that it is cracked into large segments. As the surface of the thick film dries it tends to shrink. The soft undried, bottom layers of the thick film allow the surface film to shrink thereby causing the alligatoring.

*Glossary of Paint and Coatings Terminology, M. Pavlič, Ljubljana 2002.*

Paint film cracking that makes the surface look like alligator skin. It is a condition of a paint film where the surface is cracked with the pattern resembling alligator skin. Common causes include intercoat adhesion, solvent entrapment and excessive coats of paint.

*justintanks.com/def.html*

A visible cosmetic defect in the exposed gel coat which looks like wrinkled or alligator skin.

*minwax.com/expert\_tips/wood\_finishing\_terms/*

Cracks spread over the surface of a finish, often caused by inflexibility of an older finish, too much finish, or a reaction between two coats of finish.

*Specialchem4coatings*

Coating defect: surface defects of a coating film having the wrinkled appearance of alligator skin.

*yourwebassistant.net/glossary/a5.htm*

Term for dried paint that has cracked making it take on the appearance of alligator skin, this usually occurs when paint is applied to a glossy painted surface without first scuff-sanding to promote adhesion. Also happens when a too soft primer is used under a finish coat or enough time has not been allowed between coats of paint. Also refers to asphalt to coating, which has cracked because a poor base was laid.

**Allocation**

*vidi*

**Subsidy**

### **Allomerism**

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

Similarity of crystalline structure in substances of different chemical composition.

### **Allomorphism**

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

Variation in the crystalline form of a chemical compound.

### **Allotropes**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

A substance that exists and is metastable in two or more physical forms over a given temperature range.

*answers.com/topic/allotrope, Britannica concise encyclopedia*

Any of two or more forms of the same chemical element. They may have different arrangements of atoms in crystals of the solid — for example, graphite and diamond for carbon — or different numbers of atoms in their molecules — for example, ordinary oxygen (O<sub>2</sub>) and ozone (O<sub>3</sub>). Other elements that have allotropes include tin, sulfur, antimony, arsenic, selenium, and phosphorus.

*ch.ic.ac.uk/vchemlib/mol/glossary/*

Certain chemical elements have the ability to exist in two or more different structural forms known as allotropes. These allotropes may possess different physical properties such as density and melting points. Allotropic elements include carbon, tin, phosphorus and sulphur. Each allotrope is stable within a certain range of temperature and pressure only, and under certain conditions an allotrope can be converted into another.

*factmonster.com/chemistry/glossary/a.html*

Different bonding arrangements allowing for different forms of matter to be made from a single type of atom. Different forms of matter made in this way are called allotropes. For example, ozone (O<sub>3</sub>) and dioxygen (O<sub>2</sub>) are allotropes of the element oxygen. Also, diamond, buckyball, and graphite are allotropes of carbon.

*Theleavingcert.com*

Allotropes are different physical forms of the same element (and are due to different arrangements of the atoms of the element). The allotropes of carbon are diamond, graphite and charcoal.

*Whittington's dictionary of plastics, by James F. Carley, Lloyd R. Whittington*

A substance that exists in two or more solid, liquid or gaseous forms due to differences in the arrangement of atoms of molecules. Examples are amorphous, graphite and diamond forms of carbon.

### **Allotropic element**

#### **Alotropski element**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Element koji se pojavljuje u najmanje dvjema kristalnim strukturama.**

### **Allotropic modification**

*Concise dictionary of material science, by Vladimir Novikov*

In a single-component solid, one of several stable phases differing from the others by crystal structure, and transforming one into another spontaneously at the corresponding temperature and pressure. There can be more than two allotropic forms. They are usually denoted by

Greek letters in alphabetic order, starting with alpha for the lowest temperature form. See allotropy

### **Allotropic transformation, Allotropic transition**

#### **Alotropska pretvorba**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Pretvorba kemijskoga elementa odnosno spoja iz jedne kristalne strukture u drugu uslijed promjene temperature ili tlaka.**

#### **Allotropy**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

The property exhibited by an element that exists as two or more forms, but retains the same state, e.g. red and yellow phosphorus.

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

The existence of two or more crystal structures for a substance. The term is usually reserved for chemical elements (see – Polymorphism).

#### **Allover**

*Artlandia Glossary of Pattern Design*

A layout in which motifs are fairly close and evenly distributed as opposed to stripes, borders, plaids and engineered designs. Another term is overall.

#### **Allover lace, All-overs**

*A Dictionary of Lace, by Pat Earnshaw*

Machine lace produced as yardages rather than as shaped pieces such as collars and cuffs.

*Academic dictionary of textiles, by Vinay Kumar*

An embroidered, printed, or laced fabric with the design covering most of the surface (allover the surface)

*Detaglimodaitalia*

so-called when the pattern extends over the entire surface of the material

*fibre2fashion*

general term for a wide lace in which the pattern covers the full width of the fabric . It is generally sold and cut in the same way as non lace fabrics.

#### **Allover pattern, Allover, Overall, All-over design**

*Area rugs*

A rug layout with no dominant or central design. The motifs on the rug are spread throughout the rug.

*ariadnefabric.com/Glossary.html*

a layout which involves the whole space being animated by the use of multiple forms and motifs which are distributed in a balanced way. It can be floral and naturalistic or abstract and formalised.

*Artlandia*

A layout in which motifs are fairly close and evenly distributed as opposed to stripes, borders, plaids, and engineered designs. Another term is overall.

*navajorugrepair.com/orientalterms.htm*

A term used to describe the pattern of rugs whose fields have no central medallion. An even repeating design throughout the field.

*Rugs & Carpets*

This is a term used to describe the pattern of a rug whose field has no central medallion.

### **Allover print, Allover printing**

*grafixtek.com/services.html*

All over printing is a relatively new process to the screen printing industry that is primarily done with water base or discharge inks and a garment is printed over the entire area. All over is the hottest trend in fashion today, and only offered by a limited number of companies do to the level of difficulty. All over prints may have some imperfections do to the seams and collar areas that are printed. To receive a quote for all over printing please go to our get a quote page of our site and follow instructions given.

*Teampuma*

a fabric that has a printed pattern that covers practically the whole face of the fabric.

*Wikipedia*

In streetwear fashion, an all over print is a print composed of a design that is repeated across the entire surface of a garment. Often, such prints are screen-printed. All over prints are widely used by urban fashion brands such as GRNAppleTree.

### **Allowable stress**

*Whittington's Dictionary of Plastics, by James W. Carley*

In engineering design, the maximum stress to which a structure or structural element may be subjected under the expected operating conditions. The allowable stress is normally less, by a sizable factor of safety, than the stress of the same type that would cause the member to fail under the same conditions.

### **Allowance**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

(1) The intentional difference in dimensions between two mating parts, allowing clearance for sliding fit or for a film of oil. (2) An amount of nonproductive time that is added to normal time to account for unexpected delays, worker fatigue, attendance to personal needs, etc.

### **Alloy**

*Ca-bc.com/zip\_internacional/usedmach/education/*

A solid or liquid mixture of two or more metals; or of one or more metals with certain nonmetallic elements formed by fusing the components.

*empirewest.com/info\_resources/techacademy\_glossary.htm*

Composite material made by blending polymers or copolymers with other polymers or elastomers under selected conditions. Kydex is a widely known example of an Acrylic/PVC alloy.

*Extrusion Glossary of Terms, Polydynamics*

Polymer blend having a modified interface and/or morphology

*Fibreset*

Made by mixing traditional polymers, which have already been formed. The mixing results in a single-phase material because the polymers have some interaction that combines them together. The properties of the alloy depend upon the physical interactions of the polymers.

*oldnc.3dn.ru/Docs/Harper.C.A.Plastics\_Materials\_and\_Proc-s.pdf*

The term alloy is used to represent the physical admixture of two polymers. An alloy is a composite material made by blending two or more different polymers under selected conditions. The materials in an alloy formulation are generally not chemically reacted together but exist as discrete blended regions of material. The object is to combine resins with widely differing properties into a homogeneous mass and at the same time overcome phase

separation problems associated with blending of polymers that differ significantly in molecular weight.

*Polymer Technology Dictionary, by Tony Whelan*

In the plastics industry the term is used for compositions, or blends, which are based on two or more polymers the properties of which are significantly better than would be expected from a simple blend. Such an improvement may result from chemical bonding or grafting between two immiscible polymers. See – Blend nomenclature

[struna\\_knj\\_14\\_strelementi\\_04\(1381\).pdf – Foxit Reader](#)

**Homogena smjesa kovine i jedne ili više sastavnica. Željezne slitine, posebice čelici, predstavljaju skupinu najvažnijih tehnički primjenjivanih materijala. Sastavnice mogu biti kovine, nekovine ili spojevi.**

*Whittington's dictionary of plastics, by James F. Carley, Lloyd R. Whittington*

A blend of a polymer or copolymer with other polymers or elastomers. An important example is a blend of styrene-acrylonitrile copolymer with butadiene-acrylonitrile rubber. The term polyblend is sometimes used for these mixtures. Some writers restrict the term alloy to mixtures of polymers that form a single phase, reserving the term blend for nonhomogenous mixtures.

### **Allyl alcohol, Propenyl alcohol**

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

A colourless liquid with a characteristic pungent odour, obtained from the hydrolysis of allyl chloride (from propylene) with dilute caustic, or by dehydration of propylene alcohol. It is a basic material for all allyl resins and its esters are used as plasticisers.

### **Allyl polymer**

#### **Polialil**

*Hrvatsko nazivlje polimerstva, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Poliester alilne kiseline. Plastika načinjena polimerizacijom kemijskih spojeva koji sadržavaju alilne skupine.**

### **Allyl resins**

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

Formed by addition polymerisation of compounds containing the group  $\text{CH}_2\text{CH}=\text{CH}_2$ , such as ester of allyl alcohol and dibasic acids. Allyl resins are commercially available as monomers, partially polymerised prepolymers, as moulding compounds. The most important member of the family is diallyl phthalate (DAP), diallyl maleate (DAM) and diallyl chloroendate (DAC). The monomers and partial polymers may be cured with peroxide catalysts to thermosetting resins of good high temperature performance, solvency and chemical resistance. The moulding compounds may be reinforced with glass fibres or other reinforcement, and are easily moulded by compression and transfer moulding techniques.

### **Alma**

*Mercury dictionary*

Cloth of double twill weave running diagonally from left to right. Originally made in black for mourning wear

### **Almeter**

*Merionoinnovation.com*

An instrument for determining the fibre length distribution parameters on slivers and rovings made from combed wool or synthetic fibres.

### **Aloe fibre**

*A Dictionary of Lace, by Pat Earnshaw*

A group of sub-tropical plant with a huge cluster of fleshy leaves from which the aloe fibres, used in lacemaking, are obtained.

*Dictionaryoftext00*

The fibers of the agave, made into net and lace in the Philippines, Italy, Spain and Paraguay.

*HAND BOOK ON GLOSSARY OF TEXTILE TERMS, BUREAU OF INDIAN STANDARDS NEW DELHI 110 002, UDC 001.4/677 (021) ISBN 81-7061-009-5*

Leaf fibre obtained from the Aloe plants ('*Furcraca foetida*' and '*Furcraca ginantea willemettiana*'), a native of Brazil, but cultivated on commercial scale in Mauritius and India.

*Mercury dictionary*

A fibre obtained from the leaves of various species of the Aloe plant growing in tropical countries, chiefly Africa (see Mauritius Hemp)

*Reference dictionary*

lant of the family agave (*Agavaceae*), and its fibre, belonging to the leaf fibre (q.v.) group. Despite its name, it is not a true hemp.

### **Aloe hemp**

*archive.org/stream/dictionaryoftext00harmrich/dictionaryoftext00harmrich\_djvu.txt*

Trade name for the Mauritius hemp (see) and also for the leaf fiber of certain Indian *Sansevieria* species.

*Mercury dictionary*

A fibre obtained from the *Sansevieria zeylanica*, and is very similar to Mauritius hemp. The fibres are twisted similar to a rope, but in flat tape form.

### **Aloha shirt**

*Apparelsearch*

The Aloha shirt, often mistakenly called the Hawaiian shirt by non-natives, is a style of dress shirt originating in Hawai'i, a state of the United States. It is currently the premier textile export of the Hawai'i manufacturing industry. Often short-sleeved, Aloha shirts exported to the mainland United States and elsewhere are often brilliantly colored with floral patterns or generic Polynesian motifs and are worn as casual, informal wear.

*Canadadigital.com*

The Aloha shirt, often confused with the Hawaiian shirt by non-natives, is a style of dress shirt originating in Hawai. Often short-sleeved, Aloha shirts are brilliantly colored with floral patterns or generic Polynesian motifs and are worn as casual, informal wear.

### **Alpaca cloth, Alpaca fabric**

*dyeing.ca/Articles/Woolen-And-Worsted-Fabrics.html*

A thin fabric of close texture made from the fibers of an animal of the llama species; mixed with silk or with cotton. It is usually woven with cotton warp and mohair filling. Imitations of all cotton are manufactured and sold under this name.

*Future textiles*

True Alpaca fabric is a Bradford Luster fabric in which Alpaca weft is used. It is sometimes referred to fabrics where lustrous wool is employed.

*gutenberg.org/files/24077/24077-8.txt*

A thin fabric of close texture made from the fibers of an animal of the llama species; mixed with silk or with cotton. It is usually woven with cotton warp and mohair filling. Imitations of all cotton are manufactured and sold under this name.



### *Texsite*

(a) Wool fabric which is grainy to the touch and has a characteristic gloss. In the warp a cotton - usually black - thread is twisted, while in the weft there is a mohair, lustrine or special shiny wool thread. In the past this fabric was very commonly used for aprons and the lining of men's suits. See also lustre fabric.

(b) Silky, thick, shiny midweight fabric with a fine, grainy surface in linen or Panama weave. In the warp rayon is used; in the weft a fine cotton or wool yarn is used. This fabric is intended for use in ladies' dresses and coats.

### *Wikipedia*

In the textile industry, "alpaca" primarily refers to the hair of Peruvian alpacas, but more broadly it refers to a style of fabric originally made from alpaca hair but now often made from similar fibers, such as mohair, Icelandic sheep wool, or even high-quality English wool.[citation needed] In trade, distinctions are made between alpacas and the several styles of mohair and luster.

## **Alpaca (Lama Pacos), Alpaca Fibre (Hair), Alpaca wool**

### *Beloved linens*

1. An animal somewhat like the Angora goat, but smaller, native to South America. 2. Name of a fabric originally made of this fibre. Similar to brilliantine and mohair. Smooth, wiry with cotton warp and worsted filling (alpaca, mohair or any lustrous wool slightly twisted). Wears well, sheds dust. Uses: linings, men's summer suits and office coats, women's dresses (when in vogue). . Rayon and cotton fabric called alpaca because of its wiry nature.

### *Ca-bc.com/zip\_internacional/usedmach/education/*

1. Long, fine hair from Alpaca sheep. 2. A fabric from alpaca fibers or blends, (originally a cotton cloth with alpaca filling) that is used for dresses, coats, suits, and sweaters. It is also used as a pile lining for jackets and coats. (The term has been incorrectly used to describe a rayon fabric.)

### *chezshazz dictionary*

A natural hair fiber obtained from the Alpaca sheep, a domesticated member of the llama family. Alpaca wool is most commonly used in fabrics made into dresses, suits, coats, and sweaters and is rare in home decor.

### *Crystalsfabric dictionary*

A natural hair fiber from Llamas. It's similar to cashmere in its softness and luxury. Suitable for jackets, coats or throws.

### *Dry goods*

The woolly hair of an animal of the camel tribe, which inhabit the mountainous districts of Chili and Peru. In appearance this wool is fine, white and glossy, from two to six inches in length. It retains that peculiar gloss and beauty after being woven into textures, which particularly distinguish it from other species of wool. Alpaca is shipped to this country in bales of seventy pounds each, and is assorted on arrival into eight qualities, each suitable for a particular grade of goods. The earliest manufacture of the dust-defying Alpaca fabric was in Bradford, England, in 1832 by Sir Titus Sault, at which time the fabric was made with a worsted warp and Alpaca weft, and very heavy. At the present time it is known as a thin, shiny, double-fold dress fabric, usually black, with a fine cotton warp.

### *Greengeneration.co.uk*

Free range roaming, pasture rotation, distribution of the Alpaca's manure as fertilizer, fed no hormones, no chemical dipping for ticks and parasites, no chemicals ingredients are permitted on the land or animals. Finer than cashmere, smoother than silk, softer than cotton, stronger than mohair, warmer than goose down and synthetic fabrics, and breathes better than thermal knits. The fibers do not have lanolin or other oils. Luxuriously soft on your skin.

Hypoallergenic and naturally fire resistant and dust mite resistant. The Natural Alpaca fiber comes in the whitest white, to the most intense black, including around twenty brown and gray tones. Therefore, undyed color combinations are very plentiful. By using undyed Natural Alpaca a step is made to decrease the amount of chemical runoff into the world's water tables.

*HAND BOOK ON GLOSSARY OF TEXTILE TERMS, BUREAU OF INDIAN STANDARDS  
NEW DELHI 110 002, UDC 001.4/677 (021) ISBN 81-7061-009-5*

Fibre from the fleece of the semi-domesticated animal of the same name, or of the llama, both of which inhabit the high mountain regions of South America. It is soft, lustrous and of various colours and of fine quality with a length of 18-30 cm.

*Interior Textiles: Design and Developments, edited by T Rowe*

Alpaca fibre is produced by a mammal of a *Camelidae* family. The animal slightly resembles llama, yet it is smaller and more similar to a sheep. Alpaca is kept in the Andes, from southern Peru, through Chile to northern Bolivia. The species has 26 shades of colour and the alpaca hair has a silky lustre. There are two varieties of Alpaca – suri and huacaya – with different types of hair. Alpaca wool is used for producing high-quality yarns and clothes, blankets, ponchos, carpets, carpeting, duvets, pillows, felt, therapeutic belts and winter hats. The diameter of elementary fibres is 15-45 µm. The goods made from alpaca fibres are light, with excellent thermal insulation.

*Mercury dictionary*

This is obtained from the domesticated alpaca, an animal resembling the angora goat, but smaller, and is variously white, reddish-brown, or black; fibre 6 to 8-in. long, with a uniform diameter, slightly wavy, smooth and fine. It is chiefly used for ladies' dress cloths and lounge jackets. Spun into counts 28's and heavier, also 2/40's and 2/36's from the finer wools. Hosiery yarns are also made from alpaca wool, mostly soft spun in natural shades

*Peruvian connection*

The fine fleece of the alpaca, cousin to the llama. Alpaca is warmer and lighter than wool yet stronger and far more durable. The fineness of alpaca hair and its hollow, insulating core give alpaca fibre a smooth, velvety hand and cloud-weight softness.

*Pineta*

Vunena tkanina u platnenom vezu, kruta opipa i koristi za izradbu finih laganih proljetnih odijela.

*Technical centre*

A natural hair fiber obtained from the Alpaca sheep, a domesticated member of the llama family. The fiber is most commonly used in fabrics for dresses, suits, coats, and sweaters.  
Texsite

Fine, soft, shiny, hair of the alpaca, a ruminant of the camel family which lives in the South American Andes, often at extreme heights of around 6000m. Its coat is a result of its adapting to its surroundings. Shearing is performed once every two years and only in part to ensure the retention of protection against the harsh conditions; exploitability is between 2kg and 4kg. Used in the production of lustre fabrics and high-quality fabrics of carded yarn of the camel wool type. Fabrics produced from a. w. have the same name. Sometimes the term a. w. is used for fabrics produced from a. w.

*Vintage sewing wovens*

Strong, elastic, wiry fabric with a glossy brightness of silk. Used for men's summer suits and coat linings, and for women's tailored skirts.

*Wikipedia*

In the textile industry, "alpaca" primarily refers to the hair of Peruvian alpacas, but more broadly it refers to a style of fabric originally made from alpaca hair but now often made from similar fibers, such as mohair, Icelandic sheep wool, or even high-quality English

wool.[citation needed] In trade, distinctions are made between alpacas and the several styles of mohair and luster.

*yukonfood.com/FibreMillReport.pdf*

The two breeds of alpaca, huacaya and suri; differ primarily in the character of their fibre. The huacaya has a crimped or wavy fleece whereas the suri has straight, fine fibre. Alpaca fibre is known for its fineness, lustre, light weight and insulating quality. There are 22 officially recognized colours of alpaca. Sweaters, blankets, mitts, socks, shawls, hats, duvets can be created from this fibre. Fibre length varies from short fibres (1.5 inches to 3.5 inches) to long fibres (3.5 inches to 6 inches). Short fibres are usually processed in a woollen method which will result in a softer lofty yarn. Longer fibres are usually processed in a worsted method which will result in a more hard wearing, tightly-spun, light-weight yarn.

### **Alpaca crepe**

*resil.com/c.htm*

Soft, acetate or polyester fabric with dulls surface, fairly soft to handle.

### **Alpaca stitch**

*Bangladesh textile link*

A 1 x 1 purl-links stitch that is knit so that the courses run vertically instead of horizontally as the fabric comes off the knitting machine. A garment made with an alpaca stitch is not always 100% alpaca; it can be made of other natural or manufactured fibers.

*Ca-bc.com/zip\_internacional/usedmach/education/*

A 1 x 1 purl-links stitch that is knit so that the courses run vertically instead of horizontally as the fabric comes off the knitting machine. A garment made with an alpaca stitch is not always 100% alpaca; it can be made of other natural or manufactured fibers.

### **Alpaca yarn**

*Future textiles*

Generally composed of a mixture of white, black, and different shades of grey and brown alpaca fibres, which is too dark to be dyed into bright colours, and the yarn is, therefore, mostly used in the natural state or is dyed black. Its chief use is as weft in dress and lining fabrics.

*Texsite*

A low-value yarn from torn, half-woollen waste (rare).

### **Alpargata**

*gypsywearvintage.com/fashionterms.htm*

sandal of rope of hemp; features woven sole shaped to footprint to which straps attach.

*Shoe-design.com*

a Spanish or South American sandal-like shoe, usually with rope sole, attached to the foot by thongs.

### **Alpha cellulose**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

A highly refined cellulose from which all soluble materials (such as sugars and pectin) have been removed by a strong sodium hydroxide solution. It is the major component of wood and paper pulp.

*Ca-bc.com/zip\_internacional/usedmach/education/*

One of three forms of cellulose. Alpha cellulose has the highest degree of polymerization and is the chief constituent of paper pulp and chemical dissolving-grade pulp. (Also see BETA CELLULOSE and GAMMA CELLULOSE.)

*Etherington & Roberts*

That part of a cellulosic material that is insoluble in a 17.5% solution of sodium hydroxide at 20° C. under specified conditions. While alpha cellulose consists principally of cellulose, it does include other components that are insoluble under the test conditions. Because the permanence of paper depends to some extent on the absence of non-cellulosic impurities, the determination of true cellulose (alpha cellulose) gives an indication of the stability of the paper, and therefore its permanence.

*Nature*

ALPHA-CELLULOSE is an insoluble fibrous residue obtained by extraction of wood, straw pulps and holocelluloses with strong alkali under carefully controlled conditions. Since the procedures used are arbitrary, the yield and composition of the alpha-cellulose prepared from any specific source may vary within rather narrow limits. Although alpha-cellulose from structural celluloses consists largely of  $\beta$ -1,4 glucopyranose chains, it contains also some non-glucose units. Xylan appears to be associated with most alpha-celluloses, with mannan being present also in those from gymnosperms<sup>1,2</sup>. Recent evidence by Leech<sup>3</sup> indicates that a chemical union exists between the glucose and mannose units. Analytical data on wood alpha-celluloses suggest that uronic acid residues are also contained in the alpha-cellulose fraction, although positive identification of the specific acid has not been made<sup>2</sup>.

*Polymer Technology Dictionary, by Tony Whelan*

A pure form of cellulose, which has high molecular weight, and a bright, white colour. It results when impurities (for example, lignin and hemicelluloses) are removed from cotton linters by an alkali treatment under pressure (dilute sodium hydroxide at 150°C) followed by bleaching (sodium hypochlorite). If wood is selected for raw material (for example raw rayon production), then alpha cellulose may be defined as that which does not dissolve in an 18% solution of sodium hydroxide after 30 min at 20°C.

*Whittington's Dictionary of Plastics, by James W. Carley*

A colourless filler obtained by treating wood pulp with alkali, used in light-coloured thermosetting resins, such as urea formaldehyde and melamine formaldehyde. The material is sometimes treated with resinous agents to coat the individual particles and reduce water absorption of the finished articles.

## **Alpha decay**

### **Alfa raspad**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Radioaktivni raspad teške jezgre u kojemu se emitira alfa-čestica i nastaje jezgra elementa s rednim brojem koji je manji za dva i nukleonskim brojem koji je manji za četiri.**

## **Alpha particle**

*Dictionary of Ceramic Science and Engineering, By Ian McColm*

A positively charged helium-4 nucleus emitted by several radioactive materials.

*Environmental Engineering Dictionary, edited by C. C. Lee*

(1) A positively charged particle, consisting of two protons and two neutrons, which is emitted during radioactive decay from the nucleus of certain nuclides. It is the least penetrating of the three common types of radiation (alpha, beta and gamma). (2) An alpha particle is indistinguishable from helium atom nucleus and consists of two protons and two neutrons

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Čestica koja je sastavljena od dvaju protona i dvaju neutrona te čini jezgru helija**

### **Alpine hat, Hunting hat, Tyrolean hat**

*Millinary info*

Sport hat of soft felt or tweed. The crown slants upward to a lengthwise crease. The narrow brim is rolled up at the back and turned down in front. Brush or feather trim in the headband. Adapted from hats worn by people in the Swiss Alps.

*Wikipedia*

The Tyrolean hat, named after the region of Tyrol, is associated with the Austrian Alps. Tyrolean hats have a cord wrapped around the base of the crown and a feather or brush on the side as trim. They are traditionally green and made of fine velour felt. Occasionally, inexpensive plastic Tyrolean hats are made available to help celebrate Oktoberfest around the world. Contains a massively tall pointed krone with a enge styled brim.

*Yourdictionary*

a man's soft felt hat with a somewhat conical crown that is flat and creased at the top, a narrow brim partially turned up, and, usually, a feather for decoration

### **Alpine jacket**

*frontcountry.com/site/rab\_fusion\_alpine\_jacket*

An Alpine mountaineering inspired softshell/hardshell hybrid. Fully waterproof eVent material in key areas, with weather resistant softshell fabric in areas where breathability is more critical. This jacket is designed to perform whist climbing or mountaineering in changeable conditions, an intelligent solution for when a full hardshell isn't always necessary. Great for the Alps, ideal for Scotland, perfect for the Lakes and North Wales.

*prolitegear.com/rab\_womens\_latok\_alpine\_jacket.html*

Designed as a summer Alpine climbing jacket the Latok Alpine has a full helmet compatible hood, single weatherproof front zipper and 2 outer pockets...and very little else! This is the perfect balance between protection and weight saving for lightweight mountaineering.

*Texsite*

sports jacket, the shape of which is taken from Bavarian and Austrian ceremonial attire. Waist-length and distinguished by the differing colours of its welted edges and pockets and by its metal buttons. Is commonly single-breasted, without lapels and with a stand-up collar.

### **Alsimag®**

*Ca-bc.com/zip\_internacional/usedmach/education/*

Registered trademark of American Lava Corporation for ceramic materials. These materials are used in guides and discs on textile processing machines and fiber manufacturing equipment.

### **Altar cloth**

*Dry goods*

A general term, formerly designating the closed case of linen used for covering an altar, and which was never allowed to be removed except for washing ; later, temporary coverings, whether of white linen or of rich brocaded cloth or embroidery. Ordinarily at present altar cloths are not used by the Protestant churches except at communion services.

*resil.com/c.htm*

Also called Bisso linen. Very fine, sheer, crisp fabric, used as the name suggests, for church clothes.

### **Altar (mehrabi) design**

*oldcarpet.com/visibility.htm*

Carpet design inspired by the altar of Muslim Mosques but some other decorative elements like columns and flower and leafs have been added to it later. The variations of these designs are named by the name of the added elements.

### **Alter**

*Needlepointers.com*

To change or revise a pattern or garment to suit individual sizing or desires. This could be making an item larger or smaller, adding darts, lengthening a bodice, etc.

*sewingweb.com/dictionary/*

To change or revise a pattern or garment to suit individual sizing or desires. This could be making an item larger or smaller, adding darts, lengthening a bodice, etc.

*thesewingdictionary.com/#r*

Making changes to a pattern to provide a better fit or to a garment after it is made, be it hand made or purchased. Altering it changes it from the original form or size - taking it in, hemming it, changing the size in any way. For instance, a theater may alter stock costumes to fit various cast members, adding seams, taking in seams, letting out seams, etc. Altering is a way to make certain that the garment fits just right. The change itself is often called an alteration.

*txspace.tamu.edu/bitstream/handle/1969.1/87416/pdf\_2296.pdf?sequence=1*

To change the pattern or garment so that it fits the body and represents body measurements and proportions.

### **Alteration**

*vidi*

### **Replacement**

### **Altered leather**

*kingsmerecrafts.com/page19.html*

This is leather that has had the original surface of the hide or skin removed, because of what are considered to be blemishes or imperfections in the grain surface. As a consequence a new grain is embossed into it. It is sometimes referred to as a corrected grain, and a lot of top-grain leathers have had this treatment, probably most.

*Orgs.ttu.edu*

Leather that has had the original surface of the skin or hide removed (usually due to imperfections in the original grain surface), and a new grain embossed into the leather. This is also called corrected grain. Most top-grain leathers have altered or corrected grain.

### **Alternate course knitting**

*Seamlessconsort.com*

Process by which different yarns can be knitting on adjacent feeds, thus allowing for different yarn or yarn combinations every other course. This can provide benefits in appearance and fit depending on the combinations utilized.

### **Alternate current, Alternating current**

*en.wiktionary.org/wiki/alternating\_current*

an electric current in which the direction of flow of the electrons reverses periodically having an average of zero, with positive and negative values (with a frequency of 50 Hz in Europe, 60 Hz in the US, 400 Hz for airport lighting, and some others); especially such a current produced by a rotating generator or alternator.

*epectec.com/flex/glossary/index.html*

Electric current that rises from zero to a maximum in one direction, falls to zero and then rises to a maximum in the opposite direction, and then repeats another cycle.

*Wikipedia.org*

In alternating current (AC, also ac) the movement (or flow) of electric charge periodically reverses direction. In direct current (DC), the movement (or flow) of electric charge is only in one direction. Used generically, AC refers to the form in which electricity is delivered to businesses and residences. The usual waveform of an AC power circuit is a sine wave, however in certain applications, different waveforms are used, such as triangular or square waves. Audio and radio signals carried on electrical wires are also examples of alternating current. In these applications, an important goal is often the recovery of information encoded (or modulated) onto the AC signal.

**Alternate process**

**Zamjenski postupak**

*ISACA® Glossary of Terms English - Slovenian*

Automatic or manual processes designed and established to continue critical business processes from point-of-failure to return-to-normal.

**Alternating copolymer**

**Alternirajući kopolimer, Izmjenični kopolimer**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

A polymeric chain consisting of two diverse monomer units that alternate regularly along the chain.

*Struna – Hrvatsko strukovno nazivlje – Polimeri*

Kopolimer u kojemu su izmjenično raspoređene dvije vrste monomera.

*Technical brief 2011, Glossary of Polymer terms*

A polymer comprising only two types of repeat unit, chemically linked in an alternating sequence.

*Pure & Appl. Chem.*, Vol. 68, No. 12, pp. 2287-2311, 1996.

A copolymer (see Definition 2.5) consisting of macromolecules (see Definition 1.1) comprising two species of monomeric units (see Definition 1.8) in alternating sequence.

An alternating copolymer may be considered as a homopolymer derived from an implicit or hypothetical monomer; see Note 1 to Definition 2.4.

*The elements of polymer science and engineering, by Alfred Rudin*

In an alternating copolymer, each monomer of one type is joined to monomers of a second kind. An example is the product made by free radical polymerisation of equimolar quantities of styrene and maleic anhydride. These low-molecular weight polymers have a variety of special uses including the improvement of pigment dispersions in paint formulations.

**Alternating copolymerization**

**Alternirajuća kopolimerizacija, Izmjenična kopolimerizacija**

*E. VIDOVIĆ: Glosar pojmova vezanih uz kinetiku, termodinamiku i mehanizme polimerizacije, Kem. Ind. 61 (4) 215–236 (2012)*

Kopolimerizacija u kojoj nastaje alternirajući kopolimer. Alternirajući kopolimer je kopolimer koji se sastoji od jednonitne makromolekule koja uključuje dvije vrste monomernih jedinica u izmjeničnom slijedu. (Vidi - Periodična kopolimerizacija.)

*Struna – Hrvatsko strukovno nazivlje – Polimeri*

Polimerizacija tijekom koje nastaje izmjenični kopolimer.

**Alternating stress, Oscillating stress, Reversed stress**

**Izmjenično (dinamičko) naprezanje, Titrajno naprezanje**

*answers.com/topic/alternating-stress*

A stress produced in a material by forces which are such that each force alternately acts in opposite directions.

*oldnc.3dn.ru/Docs/Harper.C.A.Plastics\_Materials\_and\_Proc-s.pdf*

Alternating stress is a stress that varies between two maximum values that are equal but of opposite signs, according to a specification determined in terms of time. Alternating stress is a form of fatigue, and long periods of alternating stress can result in degradation and failure below the tensile strength of the plastic. An alternating-stress amplitude is a test parameter of a dynamic fatigue test. It is one-half the algebraic difference between the maximum and minimum stress in one cycle.

*struna\_knj\_14\_strelementi\_04(1381).pdf – Foxit Reader*

**Dinamičko naprezanje promjenjiva predznaka kao rezultat sile ili momenta koji mijenjaju smjer djelovanja. Kod izmjeničnoga dinamičkog naprezanja u općem se slučaju opterećenje ne mijenja samo po veličini, nego i po smjeru, tj. po predznaku.**

*Whittington's dictionary of plastics, by James F. Carley, Lloyd R. Whittington*

A stress mode typical of fatigue tests in which the specimen is subjected to stress that varies sinusoidally between tension and compression, the two maximum stresses being equal in magnitude. In some tests, the stress cycles between zero and a tensile maximum, or other unsymmetrical limits. The term applies also to other modes of loading, such as bending and torsion.

### **Alternating twist, False twist**

*Ca-bc.com/zip\_internacional/usedmach/education/*

A texturing procedure in which S and Z twist are alternately inserted in the yarn by means of a special heating arrangement.

*composites.ugent.be/home\_made\_composites/documentation/Glossary\_of\_textile\_terms\_for\_composites.pdf*

A **yarn** in which the **twist** alternates between S-type and Z-type along the length of the yarn. **Sometimes** called "False twist."

### **Alternative energy source**

*egreenideas.com/glossary.php?group=a*

Energy sources, which can be substituted for fossil fuels, nuclear power, and large-scale hydroelectric power; e.g., solar, wind, geothermal, biomass.

*Shsu.edu*

Any energy source that can be harnessed without the use of burning fossil fuels. Such alternative sources are almost always a renewable energy source such as hydroelectric power, wind power, and solar power.

### **Alternator**

#### **Alternator**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Sinkroni električni generator koji po načelu elektromagnetske indukcije proizvodi izmjenični električni napon. Alternator energiju mehaničke rotacije pretvara u energiju električnoga i magnetskoga polja.**

### **Alum**

*Britannica*

any of a group of hydrated double salts, usually consisting of aluminum sulfate, water of hydration, and the sulfate of another element. A whole series of hydrated double salts results from the hydration of the sulfate of a singly charged cation (e.g., K<sup>+</sup>) and the sulfate of any one of a number of triply charged cations (e.g., Al<sup>3+</sup>). Aluminum sulfate can thus form alums with sulfates of the singly charged cations of potassium, sodium, ammonium, cesium, and



other elements and compounds. In similar fashion, sulfates of the triply charged cations of iron, chromium, manganese, cobalt, and other metals may take the place of aluminum sulfate. The most important alums are potassium aluminum sulfate, ammonium aluminum sulfate, and sodium aluminum sulfate. Potassium aluminum sulfate, also known as potassium alum or potash alum, has a molecular formula of  $K_2(SO_4) \cdot Al_2(SO_4)_3 \cdot 24H_2O$  or  $KAl(SO_4)_2 \cdot 12H_2O$ .  
*Carpets & Rugs*

(Aluminum Sulfate –  $Al_2(SO_4)_3$ ) A white crystalline compound,  $Al_2(SO_4)_3$ , used chiefly in paper making, water purification, sanitation, and tanning. Alum (Aluminum Sulfate) is widely applied as inorganic coagulant for clarification of water treatment to make clear water for industrial and drinking. ALUM also used as mordant to allow dyes absorb by wool fibers in traditional dyeing.

[ebooksread.com/authors-eng/louis-harmuth/dictionary-of-textiles-hci/1-dictionary-of-textiles-hci.shtml](http://ebooksread.com/authors-eng/louis-harmuth/dictionary-of-textiles-hci/1-dictionary-of-textiles-hci.shtml)

Used extensively as mordant for alizarine dyes, as agent in printing wool with alizarine, and dyeing wool with eosine, in Turkey red dyeing, etc.

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

(1)  $KAl(SO_4)_2 \cdot 12 H_2O$ . Potash alum, a sulphate of potassium and aluminium with astringent and acidic properties. Used as an accelerator. (2) Any of various double salts with similar chemical formulae and crystal structure to potash alum.

[list.emich.edu/~dyers/pdfs/dyeglossary.PDF](http://list.emich.edu/~dyers/pdfs/dyeglossary.PDF)

There are several compounds that are called alum. One is aluminum potassium sulfate - pickling alum. Others include aluminum sulfate (the alum most used in textile arts, and used in municipal water filtration plants), aluminum ammonium sulfate (ammonia alum), chromium potassium sulfate (chrome alum), and more. Some alums are used as mordants in dyeing, primarily with natural (plant extract) dyes.

*Naftni rječnik – Perić*

Dvostruka sol kalijskog i aluminijskog sulfata, kristalni spoj bijele boje ili bezbojan, trpkog slatkasto-kiselog okusa. Topljiv je u hladnoj vodi, vrlo topljiv u vrućoj vodi i netopljiv u etanolu i acetonu. Primjenjuje se kao koloidni flokulant u tehnologiji pročišćavanja otpadnih voda. Sinonim: potash alum, potassium alum.

[silicates.com/leading-glossary.asp](http://silicates.com/leading-glossary.asp)

Aluminum sulfate [ $Al_2(SO_4)_3$  or  $Al_2(SO_4)_3 \cdot 18H_2O$ ], typically supplied as a dry powder or as a 48.5% aqueous solution. Used as a paper sizing and as a primary coagulant in water treatment.

[Weavers.org.uk](http://Weavers.org.uk)

Aluminium potassium sulphate. Used as a mordant when dyeing wool. Usually combined with cream of tartar in a ratio of 3 parts alum to 1 part cream of tartar.

*Wikipedia*

Alum, refers to a specific chemical compound and a class of chemical compounds. The specific compound is the hydrated aluminum potassium sulfate with the formula  $KAl(SO_4)_2 \cdot 12H_2O$ . The wider class of compounds known as alums have the related stoichiometry,  $AB(SO_4)_2 \cdot 12H_2O$ .

### **Alum retanning**

[healsfang.com/infoleatherterms\\_a.html](http://healsfang.com/infoleatherterms_a.html)

Second tanning treatment, with double sulphates formed from one of the alkali metals combined with a trivalent metal, usually potassium alum and salt, but sometimes with aluminium sulphate and salt.

## **Alum-tanned leather, Alum leather**

*Gloveslingers.com*

Leather produced by alum, used in combination with salt, egg yolk, and other substances.

Before the invention of chrome tanning this was the principle method of tanning with mineral agents. Note: This process is still used in lace leather for quality gloves today.

*kingsmerecrafts.com/page19.html*

A white, soft leather, produced by drumming the skins with a mixture of alum flour (alum, also known as potash alum, is a colourless soluble hydrated double sulphate of aluminium and potassium used in the manufacture of mordants and pigments, for dressing leather, and sizing paper) or chalk, salt and egg-yolk. This procedure, is known as tawing, and is usually confined to small skins only. Tawed leather is dressed with a fat liquor (a mild alkali, such as an emulsion of soap and oil) while still damp and after dyeing, its fibres are then further broken by working it over a stake as it dries.

*Naldr.nal.usda.gov*

Leather prepared solely with a mixture of which the essential active ingredient is an aluminum salt, often but not necessarily alum. The usual combination is alum, sodium chloride, egg yolk, and some other substance, generally, flour. The natural color of the leather is white. Chrome-tanning has replaced this method in tanning all but glove leathers.

*Nationmaster.com*

Alum-tanned leather is tanned using aluminum salts mixed with a variety of binders and protein sources, such as flour, egg yolk, etc. Purists argue that alum-tanned leather is technically "tawed" and not tanned, as the resulting material will rot in water. Very light shades of leather are possible using this process, but the resulting material is not as supple as vegetable-tanned leather.

*Siegelofca*

Alum tanned leather is produced as the result of the action of a combination of aluminum and potassium sulfate on the hide or skin. Leather tanned with alum is white and produces a very strong leather. Alum has the disadvantage of being able to be washed out of the leather yielding an untanned skin unless the leather has been tanned with additional materials.

*Wikipedia*

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## **Alum tanning**

*mikeredwood.com/about\_gloves*

A process of tanning with alum, used in combination with salt, egg yolk and other substances. A major tannage for gloves in history, only used infrequently today.

*naldr.nal.usda.gov/Exe/ZyNET.exe*

Preparing leather solely with a mixture of which the essential active ingredient is an aluminum salt, often but not necessarily alum. The usual combination is alum, sodium chloride, egg yolk, and some other substance, generally, flour. The natural color of the leather is white. Chrome-tanning has replaced this method in tanning all but glove leathers.

*parchmentart.com/*

Alum-tanned skins are mainly designed for restorers of antique books. This is one of the most ancient forms of tanning known and the skins have an extraordinary hardness and strength that resists the passage of time. We make them of goat, sheep, calf and pig.

## **Alumina, Corundum**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

The oxide of aluminium, which occurs in nature as corundum and which is used in its synthetic form for the production of aluminium metal.

*chromatographyonline.findanalytichem.com/lcgc/article/articleDetail.*

A normal-phase adsorbent used in adsorption chromatography. Aluminum oxide is a porous adsorbent that is available with a slightly basic surface; neutral and acidic modifications also can be made. Basic alumina can have advantages over silica, which is considered to have an acidic surface.

*composite.about.com/library/glossary/a/bldef-a300.htm*

Aluminum oxide ( $\text{Al}_2\text{O}_3$ ) used as a ceramic substrate material.

*Environmental Engineering Dictionary, edited by C. C. Lee*

(1) Any form of aluminium oxide,  $\text{Al}_2\text{O}_3$ , occurring naturally as corundum, in a hydrated form in bauxite, and with various impurities as ruby, sapphire and emery. (2) Common name for aluminium oxide, a necessary ingredient in the manufacture of cement and many other products.

*Polymer Technology Dictionary, by Tony Whelan*

Occurs naturally as emery and as corundum. Aluminium oxide is used as a filler with thermosetting plastics, as the product is hard and has a low coefficient of expansion. It is used to obtain high modulus fibres, as the modulus of alumina is  $55 \times 10^6$  psi. The fibre material has relative density of 3.9. Melting point of alumina is  $2015^\circ\text{C}$ .

*silicates.com/leading-glossary.asp*

The native form of aluminum oxide. It occurs as corundum or in hydrated forms as a powder or crystalline substance.

*Whittington's dictionary of plastics, by James F. Carley, Lloyd R. Whittington*

The oxide of aluminium ( $\text{Al}_2\text{O}_3$ ), very refractory and next to diamond and boron nitride in hardness, obtained by calcination of bauxite. Alumina powder is used as a fire-retardant filler in plastics, and, over a past two decades, alumina fibres have enjoyed increased use in reinforcement for plastics, metals and even ceramics. Its density is  $3,965 \text{ g/cm}^3$ .

## **Alumina balls**

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

(1) High-density, abrasion-resistant balls used as grinding media in ball mills where contamination by iron and other metallic grinding media is to be avoided. (2) Spheres ranging from 6.25 to 18.75 mm in diameter that exhibit high heat and chemical resistance when used in chemical reactors of catalytic beds.

## **Alumina fibre, Aluminium oxide fibre, Alumina whisker**

*ecourses.vtu.ac.in/nptel/courses/Webcourse-contents/IISc-BANG/Composite Materials/Learning material - composite material.pdf*

Alumina aluminium oxide fibers, basically developed for use in metal matrices are considered a potential resin-matrix composite reinforcement. It offers good compressive strength rather than tensile strength. Its important property is its high melting point of about  $2000^\circ\text{C}$  and the composite can be successfully used at temperature up to about  $1000^\circ\text{C}$ . Magnesium and aluminum matrices frequently use alumina fiber reinforced composites as they do not damage the fiber even in the liquid state.

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

Fibres with  $>60 \text{ wt.}\%$   $\text{Al}_2\text{O}_3$ , usually prepared by extruding an aqueous gel through spinnerets, drying and then firing to  $1200^\circ\text{C}$ . Exhibit high strength, around  $2.3 \text{ GN/m}^2$  that is preserved to temperatures up to  $1000^\circ\text{C}$ .

*nptel.iitm.ac.in/courses/Webcourse-contents/IISc-BANG/Composite Materials.pdf*

Alumina aluminium oxide fibers, basically developed for use in metal matrices are considered a potential resin-matrix composite reinforcement. It offers good compressive strength rather than tensile strength. It's important property is its high melting point of about 2000°C and the composite can be successfully used at temperature up to about 1000°C. Magnesium and aluminum matrices frequently use alumina fiber reinforced composites as they do not damage the fiber even in the liquid state.

*Polymer science dictionary, by Mark S.M.Alger*

Al<sub>2</sub>O<sub>3</sub>. Alumina whiskers, of aspect ratio of about 100, having high modulus (to about 370 Gpa) have been produced and are of interest as potential reinforcements for composites, but do not have the relative low density of carbon and glass fibres.

*progtex.de/knowhow\_fibres2\_en.php4*

Technical fibre (made by DuPont, USA) based on aluminium oxide. Density 3,96 g/cm<sup>3</sup>, module 420 KN/mm<sup>2</sup>, melting point : 2045° C.

*Whittington's dictionary of plastics, by James F. Carley, Lloyd R. Whittington*

A class of reinforcing fibres available as whiskers or continuous filaments, with quite different properties. Whiskers are almost pure corundum and are grown by passing a stream of moist hydrogen over aluminium powder heated to 1300 to 1500°C. Their strength ranges from 4 to 24 Gpa, modulus from 400 to 1000 Gpa. Continuous filaments are lower in crystallinity and/or alumina content, tensile strengths range from 1,3 to 2,1 Gpa and moduli from 105 to 380 Gpa.

## **Aluminising**

### **Aluminiziranje**

*Polymer Technology Dictionary, by Tony Whelan*

Coating of a substrate with a layer of aluminium. For example, coating of aramid fibres with aluminium, the heat resistance of the fibres is raised significantly.

## **Aluminium**

### **Aluminij**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

A soft, lightweight, silver-white metallic chemical element, the third most common element, having the symbol Al, the atomic number 13, an atomic weight of 26.9815, a melting point of 650°C, and a boiling point of 2450°C. It is highly ductile, malleable, conductive, and resistant to corrosion and wear, and is widely used in alloys.

*Polymer Technology Dictionary, by Tony Whelan*

The element (Al) is, with boron in Group IIIA of the periodic table. It has a relative density of 2,7 and is made from aluminium oxide. It is a lustrous white metal which melts at 660°C and boils at approximately 2400°C. A malleable, ductile material which is good conductor of heat and electricity. Because of the presence of a thin film of inert oxide, the material is corrosion resistant and is not attacked by water or steam. This film can be removed chemically, using mercury or mercuric chloride solution, which allows for rapid corrosion. Aluminium is used as a filler for thermosetting materials, in order to improve their thermal and electrical conductivity. It is also used to coat other fillers (for example, glass spheres) – for the same reasons – the electrical conductivity of some systems can be improved. A major use of this metal in the plastics industry is the manufacture of moulds, particularly when the mould is not required to withstand high pressures. Such applications include, for example, blow moulding and powder moulding. The light weight and improved thermal conductivity, compared to steel, are a great attraction. However, the metal is not so wear resistant as steel.

### **Aluminium acetate**

*Highbeam*

aluminium ethanoate ( aluminium acetate ) A white solid,  $\text{Al}(\text{OOCCH}_3)_3$ , which decomposes on heating, is very slightly soluble in cold water, and decomposes in warm water...

*resil.com/c.htm*

A mordant employed in calico printing and dyeing Known as red liquor in the textile trades. Used frequently for Waterproofing

*tactilefiberarts.com/glossary*

A mordant for cellulose fibers. It is commonly used as an antiseptic to treat inflammation and itching and infected skin due to athlete's foot, eczema, acne, and insect bites.

### **Aluminium chelate**

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

Chemically modified aluminium secondary butoxide, used as curing agents for epoxy, phenolic and alkyd resins.

### **Aluminium foil**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

A thin aluminium sheet, widely used as a food wrapping, cooking sheet, and insulation backing.

### **Aluminium hydroxide, Hydrated alumina**

#### **Aluminijev hidrokisid, Aluminijev hidrat, Hidrirani luminijev oksid**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

$\text{Al}(\text{OH})_3$ . A white powder, insoluble in water but soluble in mineral acids and caustic soda (sodium hydroxide). Used in the manufacture of ceramic glasses and in paper coating.

*Polymer science dictionary, by Mark S.M. Alger*

$\text{Al}(\text{OH})_3$ . A flame retardant filler for plastics and rubbers, but effective only when used in very large quantities (50-100 phr is typical). It flame retards by cooling, owing to its endothermic decomposition during burning. However, it decomposes from about  $200^\circ\text{C}$ , so can only be used when the processing temperature of polymer is below this value. Its use is therefore restricted to plasticised PVC, unsaturated polyesters, epoxy resins, rubbers and polyethylene.

### **Aluminium mould**

#### **Aluminijski kalup**

*Polymer Technology Dictionary, by Tony Whelan*

A mould made from aluminium or an alloy of aluminium. Such moulds are used because of their good heat conductivity. The moulds can be manufactured from rolled semi-finished goods or from castings. Wrought aluminium plates are used to produce relatively cheap injection moulds, which, because of their lightness, are easier to handle than steel moulds. When this material is cast, the cooling system may be incorporated in the casting stage. However, the material is much softer than steel and, in general, the surface is not as good. Because of these factors, aluminium is used to construct moulds where the number of shots is between 10.000 and 50.000 (although in practice 100.000 components have been made).

### **Aluminum palmitate, Palmitic acid aluminium**

*chemyq.com/En/xz/xz7/66932qbhbc.htm*

Molecular formula  $\text{Al}(\text{C}_{15}\text{H}_{31}\text{COO})_3$ . A colorless to pale yellow powder. Do not dissolve in water, ethanol. The system has the goods can be dissolved in petroleum ether, turpentine. Goods sold for more alkaline salt  $\text{Al}(\text{OH})_2(\text{C}_{15}\text{H}_{31}\text{COO})$  is a white powder, melting point  $200^\circ\text{C}$ .  $1.095\text{g/cm}^3$  density. Do not dissolve in water. Caustic can dissolve in the water and hydrocarbons. By palmitic acid and aluminum hydroxide in water heating system for admission. Used as emulsifiers, thickeners, anti-rust agent.

*Naldr.nal.usda.gov*

A yellowish-white chemical derived by heating aluminum hydroxide, palmitic acid, and water; the mixture then being filtered and dried ( $\text{Al}(\text{C}_{15}\text{H}_{31}\text{COO})_3$ ) - used in the manufacture of leather for waterproofing; also in finishing leather to produce a high gloss.

### **Aluminum-potassium sulfate, Potash alum, Alum**

*answers.com/topic/aluminium-potassium-sulphate*

A white or colourless crystalline compound,  $\text{Al}_2(\text{SO}_4)_3 \cdot \text{K}_2\text{SO}_4 \cdot 24\text{H}_2\text{O}$ ; r.d. 1.757; loses  $18\text{H}_2\text{O}$  at  $92.5^\circ\text{C}$ ; becomes anhydrous at  $200^\circ\text{C}$ . It forms cubic or octahedral crystals that are soluble in cold water, very soluble in hot water, and insoluble in ethanol and acetone. The compound occurs naturally as the mineral kalinite. It is a double salt and can be prepared by recrystallization from a solution containing equimolar quantities of potassium sulphate and aluminium sulphate. It is used as a mordant for dyeing and in the tanning and finishing of leather goods (for white leather).

*Naldr.nal.usda.gov*

Also known as potash alum. White crystals derived by roasting alunite (a natural hydrated basic sulfate of aluminum and potassium), leaching the melt, and recovering the salt by crystallization  $\text{Al}_2(\text{SO}_4)_3 \cdot \text{K}_2\text{SO}_4 \cdot 24\text{H}_2\text{O}$ .

### **Aluminium silicate**

#### **Aluminijev silikat**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

Any of the numerous types of clays that contain various proportions of  $\text{Al}_2\text{O}_3$  and  $\text{SiO}_2$ . Synthetically produced for crystals or fibres of high strength that are used to reinforced plastics.

*Polymer Technology Dictionary, by Tony Whelan*

Also known as hydrated aluminium silicate. This fine white material has relative density of 2.60. It is often used in a hydrated precipitated form. It is a white powder which may be used as a filler in rubber compounds, but is relatively expensive. Imparts hardness, wear and tear resistance for light coloured goods, particularly in the footwear industry. It is not so active or reinforcing as calcium silicate and is more expensive than mixtures of silica and china clay, which may be used to replace the silicate in rubber compounds.

### **Aluminium silicate fibres, Aluminosilicate fibre**

*resil.com/c.htm*

Fibres spun from aluminium silicate, with or without the addition of minor amounts of other materials. Light weight fibre, thermal shock resistant, flame resistant, and resilient, can withstand high temperatures, chemically stable and have electrical properties. Used for blankets, ropes, tapes and broad woven textile goods.

### **Aluminium soap**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

Any of the various salts of higher carboxylic acids and aluminium, insoluble in water and alcohol, but soluble in oils. Used in oils, paints, lubricating greases and waterproofing compounds.

### **Aluminium stearate**

#### **Aluminijev stearat**

*Polymer Technology Dictionary, by Tony Whelan*

(1) This white solid material has melting point between 160 and 170°C. It is used as a mould lubricant and as an internal lubricant for high-temperature curing. Its use slightly retards cure. It is used extensively as a thickener for lubricants, as it forms gels with hydrocarbon oils. Helps to form matt and semi-matt finishes with paints, and contributes in textile waterproofing. (2) A lubricant used with nylon materials. Tumble-coating the granules before moulding (with approximately 0,1%) eases ejection and also reduces ejection forces and thus minimises ejection problems.

### **Aluminium sulphate**

*list.emich.edu/~dyers/pdfs/dyeglossary.PDF*

$\text{Al}_2(\text{SO}_4)_3$  Aluminum sulfate is used in marbling with fabric paints. It will hydrolyze to become quite acid, which will destroy cellulosic fibres if given sufficient time, so it must be applied shortly before use, and rinsed out thoroughly afterwards.

*Naldr.nal.usda.gov*

Commonly known as alum, pearl alum, and pickle alum. It is made by treating pure kaolin or aluminium hydroxide with sulfuric acid. Aluminum sulfate is a white crystal soluble in water and insoluble in alcohol. It is used as a tanning, agent, a mordant, and a clarifying agent for fats and oils. Aluminum salts have been used for tawing (tanning) leather since the early days of leather making. In modern practice, aluminum sulfate is used chiefly for tanning glove and white lambskin leathers. Alum tanning was one of the first forms of mineral tanning until the introduction of chrome-tanning processes. Aluminum sulfate is used in the process with chrome tanning of white and light-colored leathers; also used with phosphate tannage.

*tactilefiberarts.com/glossary*

A metal salt used as a mordant. It is the safest mordant there is. Other uses for Alum include water purification, leather tanning, and the manufacturing of paper, pharmaceuticals, and cosmetics. It is also a component of baking powder.

*Wikipedia.org*

written as  $\text{Al}_2(\text{SO}_4)_3$  or  $\text{Al}_2\text{O}_3 \cdot 2\text{S}_3$  Aluminium sulfate is an industrial chemical used as a flocculating agent in the purification of drinking water[2][3] and waste water treatment plants, and also in paper manufacturing. Aluminium sulfate is sometimes incorrectly referred to as alum but alums are closely related compounds typified by  $\text{KAl}(\text{SO}_4)_2 \cdot 12\text{H}_2\text{O}$ . The anhydrous form occurs naturally as a rare mineral millosevichite, found e.g. in volcanic environments and on burning coal-mining waste dumps. Aluminium sulfate is rarely, if ever, encountered as the anhydrous salt. It forms a number of different hydrates, of which the hexadecahydrate  $\text{Al}_2(\text{SO}_4)_3 \cdot 16\text{H}_2\text{O}$  and octadecahydrate  $\text{Al}_2(\text{SO}_4)_3 \cdot 18\text{H}_2\text{O}$  are the most common. The heptadecahydrate, whose formula can be written as  $[\text{Al}(\text{H}_2\text{O})_6]_2(\text{SO}_4)_3 \cdot 5\text{H}_2\text{O}$ , occurs naturally as the mineral alunogen. Aluminium Sulfate is used in water purification and as a mordant in dyeing and printing textiles. In water purification, it causes impurities to coagulate which are removed as the particulate settles to the bottom of the container or more easily filtered. This process is called coagulation or flocculation.

## **Aluminium trihydrate, Aluminium hydrate, Hydrated alumina**

### **Aluminijev trihidrat, Aluminijev hidrat, Hidrirani aluminijev oksid**

*Polymer Technology Dictionary, by Tony Whelan*

ATH is an inexpensive, white flame-retardant filler. It is produced by the action of sodium hydroxide and natural hydrated oxide of aluminium. It is an additive flame retardant which functions as a filler, a smoke suppressant and a flame retardant. Relative density is 2,4, Mohs hardness 3 and index of refraction 1,57. It is used with both thermoplastics and thermosetting materials. Compounds can be made translucent. ATH functions as a flame retardant by absorbing the initial heat of combustion of the polymer, by decomposing endothermically and by evolving steam. It is available in a range of particle sizes and surface treatments

## **Aluminosilicate fibres**

### **Aluminosilikatna vlakna**

*Handbook of technical textiles Edited by A R Horrocks and S C Anand*

Aluminosilicate compounds are mixtures of aluminium oxide (Al<sub>2</sub>O) and silicon oxide (SiO<sub>2</sub>); their resistance to temperature depends on the mixing ratio of the two oxides. High aluminium oxide content increases their temperature tolerance from a low of 1250 °C to a maximum of 1400 °C. However, despite their high temperature resistance, these fibres are not used in high stress applications owing to their tendency to creep at high temperatures.<sup>29</sup> Their prime applications are in insulation of furnaces and replacement of asbestos fibres in friction materials, gaskets and packings.<sup>30</sup> Both aluminium oxide or alumina fibres and silicon oxide or silica fibres are also produced.

## **Amalgamator**

*vidi*

## **Mixer**

## **Amazon, Amazon cloth**

*Future textiles*

A fine dressing material normally woven with 5-end warp satin with worsted warp and woollen weft with higher ends than picks per inch. After weaving the fabric is lightly milled and raised to get full and soft handle. The best effect is seen with 36s to 40s worsted warp and 20 to 40 skeins woollen weft having 72 to 90 ends and 36 to 40 picks per inch. One of the economical methods of producing this fabric is by using fine, medium or low class wool (shoddy) in weft.

[higherdbcs.wiley.com/legacy/college/nielson/0471606405/supplementary/Decorative\\_and\\_Support\\_Fabrics\\_Glossary.pdf](http://higherdbcs.wiley.com/legacy/college/nielson/0471606405/supplementary/Decorative_and_Support_Fabrics_Glossary.pdf)

Very soft, satin warp-faced wool textile in a satin weave. The warp is worsted and the weft is heavier.

*Mercury dictionary*

A dress fabric woven from worsted yarns for warp and woollen for weft, either with the 2 X 1 warp twill or 5-end satin weave. The sett in the warp is much closer than in weft. The finish is a raised one. The illustration shows the 5-end satin design. One quality is made 40's worsted warp, 32's woollen weft, 80 X 40, per inch. Also made with wool warp and worsted weft in 5-end satin weave with twill running to the left. About 80 X 48, 2/60's warp, 40's worsted weft, from 45 to 56-in. The finish is nap raised and dress-face. Shrinkage about 12 per cent

[resil.com/c.htm](http://resil.com/c.htm)

Fine dress fabric with a worsted warp and woollen weft, usually in satin weave in plain colours. Is lightly milled and raised to give a fibrous effect but this does not conceal the twill effect of the satin weave. Expensive, so used only occasionally, mainly for women's clothes.



## Amber

### Jantar

*Apparelsearch*

a variable color averaging a dark orange yellow.

*Branka Andričić: PRIRODNI POLIMERNI MATERIJALI (Priručnik), Split 2009*

Jantar je fosilna smola nastala od četinjača koje su rasle u prošlim geološkim razdobljima (oligocenu). Nalazi se uglavnom u tzv. plavoj zemlji na obalama Baltičkog i nekih drugih sjevernih mora, ali se može naći i u ledenjačkim nanosima te u tropskom području (dominikanski jantar). To je najtvrdnija prirodna smola, žute boje poput meda, rjene smena i crvena, još rjene plava, masnog sjaja. Praktično je netopljiv u uobičajenim organskim otapalima. Rasпада se pri temperaturi oko 375°C, a gori svijetlim plamenom. Pored ostalih sastojaka sadrži jantarnu kiselinu i eterična ulja.

Trljanjem se na jantaru stvara negativni električni naboj te je upravo jantar bio prvi materijal na kojem su zabilježene električne pojave. Po njegovom grčkom nazivu (elektron) elektricitet je i dobio ime.

Poliranjem površina jantara postaje sjajna. Zbog dekorativnog izgleda od davnina je služio za izradu nakita i ukrasnih predmeta. Osim toga, upotrebljava se kao izolacijski materijal i za pripravu specijalnih lakova.

*haute couture jargon*

ancient fossilized resin; of the color and clearness of amber; of a clear yellowish brown.

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Čvrsta fosilna smola na kojoj se trljanjem krznom može proizvesti negativni električni naboj.**  
[pmfst.hr/online\\_publicacije/SkriptaPOK.pdf](http://pmfst.hr/online_publicacije/SkriptaPOK.pdf)

Fosilna smola stara milijune godina. Najpoznatija nalazišta su na obalama Baltičkog mora i u Rusiji. Jantar sadrži dibaznu jantarnu kiselinu, slobodnu i esterificiranu –

$\text{HOOCCH}_2\text{CH}_2\text{COOH}$ . Nepotpuno se otapa u organskim otapalima, a netopiva faza u otapalu nabubri, bez gubitka izvornog oblika, u tvar čvrste ali gumatse prirode, što je svojstvom visokomolekulskim umreženim polimerima. Izrazita polimerna struktura jantara objašnjava njegovu sposobnost da relativno malo izmijenjen opstane milijune godina.

*Polymer science dictionary, by Mark. s.m. Alger, Google books*

A fossil resin from pine tree species now extinct. It consists of a complex mixture of acidic substances that softens at about 150<sup>0</sup> C, and may be moulded as a thermoplastic. A hard material, but not so brittle as other natural resins.

*Whittington's dictionary of plastics, by James F. Carley, Lloyd R. Whittington*

A natural fossil resin formed during the Oligocene age by exudation from a species of pine. Its empirical formula is  $\text{C}_{10}\text{H}_{16}\text{O}$ , it softens at about 150<sup>0</sup> C, can be fabricated and polished. It has been used in jewelry, cigarette holders, etc.

*Wikipedia*

Amber is fossil tree resin, which is appreciated for its color and beauty. Good quality amber is used for the manufacture of ornamental objects and jewelry. Although not mineralized, it is often classified as a gemstone. A common misconception is that amber is made of tree sap; it is not. Sap is the fluid that circulates through a plant's vascular system, while resin is the semi-solid amorphous organic substance secreted in pockets and canals through epithelial cells of the plant. Because it used to be soft and sticky tree resin, amber can sometimes contain insects and even small vertebrates. Semi-fossilized resin or sub-fossil amber is known as copal. Amber occurs in a range of different colors. As well as the usual yellow-orange-brown that is associated with the color "amber", amber itself can range from a whitish color through a pale lemon yellow, to brown and almost black. Other more uncommon colors include red amber (sometimes known as "cherry amber"), green amber, and even blue amber,

which is rare and highly sought after. A lot of the most highly-prized amber is transparent, in contrast to the very common cloudy amber and opaque amber. Opaque amber contains numerous minute bubbles. This kind of amber is known as "bastard amber", even though it is in fact true amber.

### **Ambient**

*carbideprocessors.com/pages/Machine-Coolant-Filtration-Glossary.html*

Surrounding. For example, ambient operating temperature of a vessel is temperature essentially the same as that surrounding the vessel.

*composite.about.com/library/glossary/a/bldef-a308.htm*

Prevailing environmental conditions including temperature, pressure and relative humidity.

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

Surroundings, a term describing the conditions or character of an encompassing environment, such as the atmosphere or fluid, in terms of its temperature, composition, pressure, etc.

*Sp-bac.nl*

The surrounding environmental conditions, e.g., pressure or temperature.

*Whittington's dictionary of plastics, by James F. Carley, Lloyd R. Whittington*

Complete surrounding, indicative of the surrounding environmental conditions such as temperature, pressure, atmosphere, etc. When no values are given, the temperature is presumed to be room temperature (18 – 23<sup>0</sup> C), and the atmosphere to be air at standard pressure (101,3 kPa).

### **Ambient air**

#### **Okolišni zrak**

*Environmental Engineering Dictionary, edited by C. C. Lee*

(1) The portion of the atmosphere, external to buildings, to which the general public has access. (2) Any unconfined portion of the atmosphere. (3) The surrounding atmosphere, usually the outside air, as it exists around people, plants and structures. (4) Any unconfined portion of the atmosphere: open air, surrounding air.

### **Ambient ionization**

#### **Okolišna ionizacija**

*IUPAC . Category: Final, Mass Spectrometry Terms, 2013*

Desorption of molecules and formation of ions outside the mass spectrometer directly from samples in their native environment with no or minimal sample preparation. Examples are desorption electrospray ionization (DESI) and direct analysis in real time (DART).

Note: "Direct analysis in real time" is a proprietary term indicating the formation of ions from a solid or liquid sample at atmospheric pressure through the interaction of a gas stream containing internally excited atoms or molecules with the surface. The excited-state species are typically formed in a glow discharge in helium or nitrogen. The term should only be used to describe the commercial product.

### **Ambient light**

*Dataspec.ultron.com*

The existing light found in a particular interior setting. The ambient light may be sunlight but, in a commercial application, it is most likely to be either tungsten or fluorescent lighting.

Although sample books allow carpeting to be viewed under actual lighting conditions, it must be remembered that some variation may occur between the sample and the installed carpet.

*digikey.com/us/en/techzone/lighting/resources/dictionary.html*

Ambient light is the light diffused in the environment. When measuring a particular light source, the existing light in the environment, which is not being emitted from the source, is considered ambient light

*eaglemat.net/images/wp/carpet-glossary.pdf*

The existing light in an interior setting. Different light sources can affect the color of carpeting, and custom colors must be matched under the appropriate lighting.

*lightingdesignlab.com/library/glossary.htm*

Electric and/or natural lighting throughout a space that produces uniform general illumination.

### **Ambient temperature**

#### **Okolišna temperatura, Temperatura okoline**

*About.com*

The temperature of the medium surrounding an object. The term is often used to denote prevailing room temperature.

*asean.fasson.com/Asean/ASEANGLOS.NSF/GlossaryATerms*

Normal fluctuating temperatures in an environment which are not closely controlled, e.g. in a typical warehouse, boxcar, office building, etc.

*Cableorganiser*

The temperature of a medium (gas or liquid) surrounding an object.

*composite.about.com/library/glossary/a/bldef-a309.htm*

The temperature of the medium surrounding an object. The term is often used to denote prevailing room temperature.

*eci-capacitors.com/dictionaryterms.asp*

The temperature of the surroundings -cooling medium, such as a gas or liquid, which comes into contact with the heated parts of the apparatus.

*Elastoproxy.com*

The temperature of the atmosphere or medium surrounding the object under consideration.

*Glossary of Paint and Coatings Terminology, M. Pavlič, Ljubljana 2002.*

The usual, or surrounding, environmental thermal conditions.

*Specialchem4coatings*

Room temperature or the existing temperature of the surroundings.

*Texacoursa*

Temperature of the area or atmosphere around a process (not the operating temperature of the process itself).

### **Ambiguity**

*vidi*

### **Uncertainty**

### **American armhole**

*Texsite*

Armhole tapered to neck opening, making it possible to accentuate the shoulder. Most commonly used in blouses and ladies' summer dresses. This detail was a trend in ladies' fashion at the end of the 1980s.

### **American cloth**

*Alrashidmall*

A light-weight, plain-weave fabric, usually of cotton, coated on one side with a mixture of linseed oil and other materials so as to render it glossy and impermeable to air or water.

*Dictionaryoftext00*

In England, an enameled oilcloth for household or upholstery purposes.

*Dry goods*

A name given in England to a cotton cloth, prepared with a glazed and varnished surface to imitate Morocco leather, used for carriage trimming; known in the United States as enameled or oil cloth.

*Mercury dictionary*

A plain weave cotton fabric in many qualities, so treated on one side with coloured mixtures of linseed oil and other materials as to render it waterproof. It is much used for cheap furniture covering. Often termed imitation leather

### **American cotton**

*myHung dictionary*

Type of cotton of medium fineness and medium staple length.

### **American look**

*Fashion encyclopedia*

In fashion history the late 1940s are best known for the introduction of the New Look, a return to luxurious feminine clothes that was begun by French designer Christian Dior (1905–1957). Across the ocean, however, American designer Claire McCardell (1905–1958) was creating a revolution in fashion of her own. During World War II (1939–45), when French designers were inactive, McCardell began to design clothes that could be worn every day by busy women. In *Fashion: The Mirror of History* McCardell is quoted as saying: "I belong to a mass production country where any of us, all of us, deserve the right to good fashion." Among her first designs was a bias-cut dress. A bias-cut meant that the fabric was cut diagonally across the weave, allowing the dress to have a soft and flowing shape. McCardell also invented the popover dress, which was meant for comfortable wear around the house. Women could move easily in these dresses, and in McCardell's other designs. Observers soon hailed McCardell's designs as the American Look. Above all else American Look clothes were simple and practical. McCardell's bias-cut dresses had adjustable waistlines and side pockets. Her dirndl skirts were slim at the waist and flared outward and could be paired with her clingy tops and light sweaters. Her ballerina leotards were stretchy and fit a variety of shapes, and she eliminated the girdle, a restrictive undergarment. McCardell was fond of simple fabrics like denim and wool jersey, a soft, stretchy woven fabric. Others soon followed McCardell's example and developed an entire range of clothing that became associated with the American Look. Claire McCardell designed simple, comfortable everyday clothes for the busy American woman. The American Look had a tremendous influence on style in the United States and Europe throughout the 1940s and 1950s. Many other designers sought to make simple, comfortable women's clothes that didn't restrict movement. McCardell and others developed American Look mix-and-match sportswear, bathing suits, winter wear, coats, and other items. Interestingly, accessories like gloves and umbrellas, so important to the New Look of designer Christian Dior, were not required for a well-dressed American Look woman. The influence of the American Look's casual comfort was felt through the end of the century.

### **Amice**

*Apparesearch*

a liturgical vestment made of an oblong piece of cloth usually of white linen and worn about the neck and shoulders and partly under the alb.

*Britannica*

liturgical vestment worn under the alb. It is a rectangular piece of white linen held around the neck and shoulders by two bands tied at the waist. Probably derived from a scarf worn by the secular classes, it first appeared as a liturgical garment in the Frankish kingdom in the 9th century and was worn by all clergy as a liturgical garment by the 12th century. Its use today is optional.

*Parochie.it*

Formerly worn on the head (symbolizing a helmet protecting against Satan's assaults). A priest briefly places it on his head, says a prayer and then wears it on his shoulders

*Wikipedia*

The amice is a liturgical vestment used mainly in the Roman Catholic Church, in some Anglican churches, and in the Armenian Church. It consists of a white cloth connected to two long ribbon-like attachments, by which it is fastened around the shoulders of the priest. Before the liturgical reforms of 1972, its use was mandatory for all Roman Catholic Masses, but it is only required today if the alb does not cover the priest's ordinary clothing. Many priests choose to wear the amice for reasons of tradition or to prevent damage to their other vestments due to perspiration.

## **Amides**

### **Amidi**

*Naftni rječnik – Perić*

Grupa (klasa) organskih kemijskih spojeva izvedenih iz amonijaka zamjenom jednog njegovog vodikova atoma (primarni amidi, primary amides), dvaju (sekundarni amidi, secondary amides) ili triju (tercijarni amidi, tertiary amides) kiselinskim radikalima.

*Whittington's Dictionary of Plastics, by James W. Carley*

A compound containing the  $-\text{CONH}_2$  group, formed by the reaction of an organic acid or an ester with ammonia. Except for formamide, all amides are crystalline solids at room temperature. Examples are acetamide,  $\text{CH}_3\text{CONH}_2$ , and urea,  $\text{H}_2\text{NCONH}_2$ .

## **Amide group**

### **Amidna skupina**

*Polymer Technology Dictionary, by Tony Whelan*

A group represented as  $-\text{NHCO}-$  or  $-(\text{CO}-\text{NH})-$ . Because this linkage is the fundamental group in the nylon group of plastic materials, such materials are often also known as polyamides.

## **Amines**

### **Amini**

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

Organic bases derived from the parent compound, ammonia ( $\text{NH}_3$ ). The hydrogens of the ammonia may be substituted by alkyl groups, in which case the series of aliphatic bases is produced. Similarly aromatic bases are formed when the hydrogens are substituted with aryl groups. Primary, secondary, tertiary and quaternary amines are formed as one, two, three or four of the hydrogen atoms are replaced.

*Naftni rječnik – Perić*

Grupa (klasa) organskih spojeva izvedenih iz amonijaka koji se tvore supstitucijom jednog njegovog vodikova atoma (primarni amini, primary amines, amino bases), dvaju (sekundarni amini, secondary amines, imino bases ) ili triju (tercijarni amini, tertiary amines, nitrile bases) organskim (ugljikovodikovim) radikalima.

*Polymer Technology Dictionary, by Tony Whelan*

An organic compound formed by replacing one or more of the hydrogen atoms of ammonia with organic hydrogen groups (R). Amines can be primary  $-\text{RNH}_2$ , secondary  $-\text{R}_2\text{NH}$ , and tertiary  $-\text{R}_3\text{N}$ . (See – Aromatic amine and Aryl amine.). Amines are used to achieve curing of setting of epoxydes, and as an antioxidant in rubber compounds. An amine, octadecylamine, may be used to minimise dust formation in asbestos. (See – Amin antioxidant.)

### **Amine end groups**

*antron capet and fibres*

The terminating (-NH<sub>2</sub>) group of a nylon polymer chain. Amine end groups provide dye sites for nylon (polyamide) fibers.

*Ca-bc.com/zip\_internacional/usedmach/education/*

The terminating (-NH<sub>2</sub>) group of a nylon polymer chain. Amine end groups provide dye sites for polyamides.

*Staticworx*

The terminating (-NH<sub>2</sub>) group of a nylon polymer chain. Amine end groups provide dye sites for nylon (polyamide) fibers.

### **Amine-formaldehyde resin**

#### **Amin-formaldehidna smola**

*Polymer Technology Dictionary, by Tony Whelan*

A resin based on the reaction between a material which contains amine groups, or amide groups, and formaldehyde. Used to make urea-formaldehyde moulding materials, melamine-formaldehyde moulding materials and the like.

### **Amine resin, Amino resin, Aminoplast, Aminoplastics, Aminoplastic resin**

*ASM materials engineering dictionary, by Joseph R. Davis*

Resins made by the polycondensation of a compound containing amino groups, such as urea or melamine, with an aldehyde, such as formaldehyde, or an alkyde-yielding material.

Melamine-formaldehyde and urea-formaldehyde resins are the most important family members. The resins can be dispersed in water to form colourless syrups. With appropriate catalyst, they can be cured at elevated temperatures.

*etfinancial.com/coatingsgloss.htm*

Resins used to crosslink polyesters, epoxies, acrylics, and alkyds to enhance their durability.

*Fibreset*

A synthetic resin derived from the reaction of urea, thiourea, melamine or allied compounds with aldehydes, particularly formaldehyde.

*huntsman.com/pu/Media/PU\_Brochures\_cwp\_glossary.pdf*

Synthetic resins derived from the reaction of urea, melamine, or allied amino compounds with aldehydes, usually formaldehyde. They form the basis of thermosetting moulding materials

*specialchem4coatings.com/resources/glossary/*

Thermosetting resin manufactured from amino compound and formaldehyde. Amino resins are often used as curing agents for epoxy coatings.

*Wikipedia.org*

Melamine resin or melamine formaldehyde (also shortened to melamine) is a hard, thermosetting plastic material made from melamine and formaldehyde by polymerization.

*wordnetweb.princeton.edu/perl/webwn?s=aminoplast*

a plastic (synthetic resin) made from amino compounds; used as an adhesive and as a coating for paper and textiles

### **Amine value, Amine equivalent**

#### **Aminska vrijednost, Aminski ekvivalent**

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

The number of milligrams of potassium hydroxide equivalent to the amine basicity in 1 g of sample.

### **Aminised cotton**

*Texmachinery*

Cotton that has been treated with amino-ethyl sulphuric acid. The treatment improves the (a) affinity of cotton fibre, yarn or fabric for dye, (b) fastness to laundering and light, and (c) chemical reactivity

### **Amino polymer, Amine-aldehyde polymer, Amide-aldehyde polymer**

#### **Aminski polimer , Amin-aldehidni polimer, Amid-aldehidni polimer**

*Glosar razrednih imena polimera na osnovi kemijske strukture i molekulne arhitekture, Kem. Ind. 61 (3) 145–176 (2012) V. JARM:*

Polimer dobiven polikondenzacijom amina ili amida s aldehidom ili umreživanjem (otvrdnjavanjem, očvršćivanjem) reaktivnih oligomera amina i aldehida. Napomena 1: Najčešće upotrebljavani aldehid je formaldehid, dok su (a) melamin i (b) urea najčešći amini. Imena dobivenih polimera jesu (a) melaminski polimer ili melamin-formaldehidni polimer te (b) ureinski polimer ili ureaformaldehidni polimer. Napomena 2: Smjesa reaktivnih oligomera dobivena kondenzacijom amina ili amida s aldehidom uobičajeno se imenuje kaoaminska smola, npr. melamin-formaldehidna smolailiurea-formaldehidna smola. Napomena 3: Ne preporučuje se upotreba imena “smola” (definiciju vidi u literaturi) za umrežene (očvršćene, otvrdnute) reaktivne oligomere, umreženu (očvršćenu, otvrdnutu) smolu bi trebalo imenovati kaoaminski polimer. Napomena 4: Aminski polimer redovito je umreženi polimer, a nastaje polikondenzacijom hidroksimetilnih skupinaaminske smole. Napomena 5: Melaminski se polimeri smatraju podrazredom politriazina

### **Aminoacid, Amino acid**

*Chemmeddl.org*

A carboxylic acid containing an amino group (-NH<sub>2</sub>). In an alpha amino acid, the amino group is attached to the carbon atom adjacent to the carboxyl group.

*Polymer science dictionary, by Mark. s.m. Alger, Google books*

An organic acid containing both an amino group, usually primary NH<sub>2</sub> group, and a carboxylic acid group.

*Silk, mohair, cashmere and other luxury fibres, by Robert R. Franck*

Any of a group of nitrogenous compounds that form the component molecules of proteins.

*Whittington's dictionary of plastics, by James F. Carley, Lloyd R. Whittington*

An organic acid containing an amino group attached to the carbon atom adjacent to the –COOH group, obtained by hydrolysis of a protein or by synthesis.

### **Aminoplasts, Amino resins, Amino plasts**

#### **Aminosmola, Aminoplast, Aminoplastika**

*Glossary of Paint and Coatings Terminology, M. Pavlič, Ljubljana 2002.*

Resins used to crosslink polyesters, epoxies, acrylics, and alkyds to enhance their durability.

*oldnc.3dn.ru/Docs/Harper.C.A.Plastics\_Materials\_and\_Proc-s.pdf*

Amino resins are thermosetting compounds. Melamine, a trimer of cyanamide, and urea react with formaldehyde, first by addition to form methanol compounds and then by condensation in reactions much like those of phenol and formaldehyde. These may be polymerized to crosslinked resins by loss of water. The two important classes of amino resins are the condensation products of urea and melamine with formaldehyde (Fig. A.10). The melamine product is known as melamine formaldehyde (MF) or melamine phenoformaldehyde (MPF); the urea product is known as urea formaldehyde (UF). They are generally considered together because of the similarity in their production methods and applications. These resins are also known as aminoplasts.

*Whittington's dictionary of plastics, by James F. Carley, Lloyd R. Whittington*

Thermosetting resins made by the polycondensation of formaldehyde with a nitrogen compound and a higher aliphatic alcohol. The two general types are urea-formaldehyde and triazine-formaldehyde. Melamine is the triazine most often used

*wordnetweb.princeton.edu/perl/webwn?s=aminoplast*

a plastic (synthetic resin) made from amino compounds; used as an adhesive and as a coating for paper and textiles

*yourdictionary.com/aminoplast*

a thermosetting resinous product made by condensation of a compound containing an amine (e.g., melamine or urea) with an aldehyde (e.g., formaldehyde): is used in making permanent-press fabrics and other products

### **Ammana**

*Millinera.info*

Large spirally wound turban worn by Muslims.

### **Ammonia**

*Enviro-solution.com*

An alkaline gas composed of three parts hydrogen and one part nitrogen. Dissolved in water, obtainable in varying strengths. Cuts grease, bleaches slightly, poisonous; should be well sealed and carefully stored in a cool place away from all other chemicals.

*georgiastrait.org/?q=node/504*

Ammonia is a gas which is intensely irritating to skin, eyes, and the respiratory tract. even in low concentrations Household ammonia is a 5-10% solution of ammonia in water, and like other types of cleaning products with ammonia, it gives off ammonia gas vapors.

Environmental impacts from household use are probably minimal, although use of ammonia-based fertilizers can lead to groundwater pollution with nitrates, Ammonia reacts with chlorine bleach to produce toxic and irritating chloramines.

*list.emich.edu/~dyers/pdfs/dyeglossary.PDF*

a gas,  $\text{NH}_3$ ; often used to refer to a solution of ammonia in water, called aqua ammonia or ammonium hydroxide ( $\text{NH}_4\text{OH}$ ). Ammonium hydroxide is sometimes used for pH control, mostly where the desired pH is only moderately basic. It is used in some stripping processes for acid dyes and in rinses for reactive dyes on wool. Ammonia vapors are very irritating, and solutions should be handled carefully.

*Polymer Technology Dictionary, by Tony Whelan*

A gas which is very soluble in water and which has a pungent irritating odour. The formula is  $\text{NH}_3$ . When added to water, there is a partial combination to give ammonium hydroxide ( $\text{NH}_4\text{OH}$ ). Dissociation of this to ammonium ions and hydroxyl ions gives an alkaline solution. Obtained commercially from atmospheric nitrogen and widely used as a refrigerant and to make plastic materials. Also used to preserve rubber latex.

*schools.look4.net.nz/science/chemistry/index/index\_html*

Pure  $\text{NH}_3$  is a colourless gas with a sharp, characteristic odour. It is easily liquified by pressure, and is very soluble in water. Ammonia acts as a weak base. Aqueous solutions of ammonia are (incorrectly) referred to as "ammonium hydroxide".

### **Ammonia mercerising**

*prtr-es.es/data/images/textil-9d85edbf0238544.pdf*

Cotton yarn and fabric can be treated with anhydrous liquid ammonia as an alternative to caustic soda. Effects similar to mercerising are obtained, although the lustre grade is inferior to caustic soda mercerising. Traces of ammonia have to be removed, preferably with dry heat



treatment followed by steaming. This method is not widely used. Only a few plants are reported to use ammonia mercerising in Europe.

*Textile preparation and dyeing, by Asim Kumar Roy Choudhury*

The ammonia treatment of fabrics is done continuously with lengthwise tension. It consists of impregnating goods with liquid ammonia at atmospheric pressure (i.e. at the boiling temperature of  $-33^{\circ}\text{C}$ ) followed by the elimination of the reagent by evaporation (Sanford-Set process) or by rinsing with water (Veramtex process). In Sanford-Set process, the evaporation is done by passing over blanketed, steam-heated dry cans. The residual (5-10%) chemically bound ammonia is removed by light steaming. The process combines liquid ammonia treatment and sanforising and is especially suited for heavy fabrics, like denim and corduroy. The combined process gives enhanced dimensional stability, softness and smooth drying properties, with reduced seam puckering, edge fraying and leg twist in garment. Ammonia mercerisation is generally done on desized, kier-boiled and bleached (without optical brightener) fabric. No strong alkali treatment should be carried out after ammonia treatment.

*thesmarttime.com/processing/ammonia-mercerisation.htm*

Liquid ammonia finishing or Liquid ammonia mercerising' refers to the process that truly revives the cotton through the expansion of liquid ammonia at an ultra-low temperature inside the fibre. When the cotton fibre is treated at  $-33^{\circ}\text{C}$  liquid ammonia, ammonia at ultra low temperature will permeate immediately into the crystallographic structure of the fibre. Stress will be released through interior expansion, which makes the fibre cavity round and smooth and rearranges the molecular structure, thus the crystallographic structure becomes slack and stable. This physical change makes the surface of the entire fabric smooth and bright, with solid and soft feel, so elasticity and wash-and-wear is fully achieved. The benefits of liquid ammonia mercerising lies in the following effects that can be achieved simultaneously:

Low shrinkage post washing

Increase in wrinkle resistance

Increase in fibre elasticity

Softer to touch and brighter

Enhanced tensile strength

### **Ammonia process**

#### **Amonijačni postupak**

*HAND BOOK ON GLOSSARY OF TEXTILE TERMS, BUREAU OF INDIAN STANDARDS  
NEW DELHI 110 002, UDC 001.4/677 (021) ISBN 81-7061-009-5*

A process used for cotton for increased dye uptake, lustre and strength in which the cotton material is treated in liquid ammonia at  $-33^{\circ}\text{C}$ .

### **Ammonium chloride, Salmiac, Sal ammoniac, Ammonium muriate**

*amsglossary.allenpress.com/glossary/browse?s=a&p=47*

inorganic salt, formula  $\text{NH}_4\text{Cl}$ , formed from the neutralization of hydrochloric acid by ammonia. Ammonium chloride is a low vapor pressure solid, which deliquesces when the relative humidity exceeds 80%. It is thought to be present in the urban aerosol present in smog episodes. See deliquescence.

*Naldr.nal.usda.gov*

Also known as sal ammoniac and ammonium muriate. White crystals or a greyish fibrous mass derived from the action of ammonia or ammonium salts on hydrochloric acid, or by neutralizing galvanizer's pickle, or as a byproduct of the ammonia-soda process, or by the action of ammonia on calcium chloride solution ( $\text{NH}_4\text{Cl}$ ). It is soluble in water and glycerim. Used by the tanning industry as a powerful delimiting material, in the manufacture of various ammonia compounds used in tanning processes.

*Wikipedia.org*

in its pure form, a clear white water-soluble crystalline salt of ammonia. The aqueous ammonium chloride solution is mildly acidic. Sal ammoniac is a name of natural, mineralogical form of ammonium chloride. The mineral is especially common on burning coal dumps (formed by condensation of coal-derived gases), but also on some volcanoes. Ammonium chloride is prepared commercially by reacting ammonia (NH<sub>3</sub>) with hydrogen chloride (HCl). As these chemicals are corrosive, this process has to be performed in vessels lined with nonreactive materials (e.g. glass, enamel, lead, or PVC). Also used: to luster cotton, as a metal cleaner in soldering, as a flux in tin coating and galvanizing, in fertilizers, in safety explosions and in dyeing and tanning.

### **Ammonium hydroxide**

*answers.com/topic/ammonium-hydroxide*

A colorless, basic, aqueous solution of ammonia, NH<sub>4</sub>OH, used as a household cleanser and in the manufacture of a wide variety of products, including textiles, rayon, rubber, fertilizer, and plastic. Also called *ammonia*, *ammonia water*.

*askdrscully.com/alpha\_a.html*

a weakly basic compound NH<sub>4</sub>OH that is formed when ammonia dissolves in water and that exists only in solution

*icknowledge.com/glossary/a.html*

chemical formula NH<sub>4</sub>OH, ammonium hydroxide is a corrosive chemical with a strong ammonia odor. Ammonium hydroxide fumes are irritating to lungs, skin and eyes.

Ammonium hydroxide is used in SC1 cleaning solutions and is commonly sold as a 30% solution with a density of 0.90Kg/L.

*Naldr.nal.usda.gov*

Also known as aqua ammonium, aqua ammonia, and ammonium hydrate. Common usage of the word ammonia is usually in reference to ammonium hydroxide. A solution of ammonia gas in water (NH<sub>4</sub> OH) used in various ammonium compounds for saponifying fats and oils, in organic synthesis, as a detergent, in fatliquors, dyes, leather finishes, and bleaches.

### **Ammonium sulphate**

*dyeman.com/Glossary.htm*

A mild acid forming salt used with Acid Dyes. Used to insure levelness for light to medium shades.

*list.emich.edu/~dyers/pdfs/dyeglossary.PDF*

Ammonium sulfate is a solid chemical that is used most commonly with acid dyes and 2:1 premetallized dyes. It decomposes through hydrolysis as the bath temperature rises, slowly releasing acid. This helps produce level results: at the start of dyeing the pH of the bath will be near neutral and will drop as dyeing progresses. Neutral conditions favor leveling, while more strongly acid conditions favor good exhaustion.

*Wikipedia.org*

Ammonium sulfate (IUPAC-recommended spelling; also ammonium sulphate in British English), (NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub>, is an inorganic salt with a number of commercial uses. The most common use is as a soil fertilizer. It contains 21% nitrogen as ammonium cations, and 24% sulfur as sulfate anions. In fertilizer the purpose of the sulfate is to reduce the soil pH.

### **Ammunition leather**

*Naldr.nal.usda.gov*

Vegetable-, chrome-, and combination-tanned leather curried and finished for military leather goods.

### **Amorphous**

*Britannica*

any noncrystalline solid in which the atoms and molecules are not organized in a definite lattice pattern. Such solids include glass, plastic, and gel.

*Ca-bc.com/zip\_internacional/usedmach/education/*

Noncrystalline, lacking regular geometrical shape. Used to describe certain regions in polymers.

*Emcoplastics.com*

Devoid of crystallinity - no definite order. At processing temperatures, the plastic is normally in the amorphous state.

*Glossary of polymers*

Irregular; having no discernible order or shape. In the context of solids, the molecules are randomly arranged, as in glass, rather than periodically arranged, as in a crystalline material.

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

Having only short-range order, leading to no discernible crystalline structure.

*Mactest/glossary*

having no ordered arrangement. Polymers are amorphous when their chains are tangled up in any old way. Polymers are *not* amorphous when their chains are lined up in ordered crystals.

*plc.cwru.edu/tutorial/enhanced/files/glossary/glossary.htm*

Irregular; having no discernible order or shape. In the context of solids, the molecules are randomly arranged, as in glass, rather than periodically arranged, as in a crystalline material.

*Polymer Technology Dictionary, by Tony Whelan*

The term usually refers to a plastic material which is not crystalline, and which is, therefore usually transparent, for example polyvinyl chloride. (See .- Amorphous thermoplastic materials.)

### **Amorphous fluoropolymer**

#### **Amorfni fluoropolimer**

*Polymer Technology Dictionary, by Tony Whelan*

This type of thermoplastic material (for example, Teflon) has many of the properties associated with semi-crystalline thermoplastic fluoropolymers. It is, however, non-slippery and is optically clean. These materials have the lowest dielectric constants of known plastics, good creep resistance and an excellent resistance to chemical attack. The mechanical properties are retained up to the end-use temperatures of approximately 300<sup>0</sup>C. It can be melt processed on equipment for thermoplastic fluoropolymers, can be cast into thin films and pinhole free coatings, as it is soluble in selected perfluorocarbon solvents. Suggested uses include release films and coatings, lens covers for microwaves and radar dvices, and in fibre optics.

### **Amorphous phase**

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

Devoid of crystallinity (noncrystalline). Most plastics are amorphous at processing temperatures.

### **Amorphous polymer, Amorphous plastic**

#### **Amorfni polimer**

*ASM materials engineering dictionary, by Joseph R. Davis*

A plastic that has no crystalline component, no known order or pattern of molecular distribution, and no sharp melting point.

*Automateddynamics.com*

A polymer or plastic of which the molecular chains are arranged randomly with no long term order.

*Fluoroplastics: Melt Processible Fluoropolymers : The Definitive Users Guide, by Sina Ebnesajjad*

Amorphous polymers are polymers having noncrystalline or amorphous supramolecular structure and morphology. Amorphous polymers may have some molecular order, but usually are substantially less ordered and crystalline polymers and subsequently have inferior mechanical properties.

*Glossary of technical terms - Polymer Process*

Amorphous means irregular, having no discernible order or shape. In the context of solids, the molecules are randomly arranged, as in glass, rather than periodically arranged as in a crystalline material. Amorphous polymer has a glass like structure with tangled chain and no long range order.

*I. ŠMIT: Definicije naziva koji se odnose na kristalne polimere, Kem. Ind. 62 (11-12) 417-448 (2013)*

**Polimer u amorfnom stanju. Naziv može upućivati na polimer koji zbog svoje konstitucije, ne može kristalizirati, tj. nekristalizirljiv polimer. On se također može odnositi na kristalizirljivi polimer ili na polimernu sastavnicu koja nije kristalna pri razmatranim specifičnim uvjetima. Analitičke tehnike općenito ne razlikuju polikristalni polimer izmjera manjih od 2 nm od amornog polimera. Vrijednost od 2 nm je 2 do 3 puta veća od tipičnih izmjera (dimenzija) rešetki mnogih polimera, npr. polietilena i polipropilena.**

*microspecorporation.com/technical\_glossary.php*

Thermoplastics that have no crystallinity; for example, polysulfone or polycarbonate.

Amorphous polymers have a glass transition temperature (a range at which they soften) but no defined melting point. See Semi-crystalline polymers.

*oldnc.3dn.ru/Docs/Harper.C.A.Plastics\_Materials\_and\_Proc-s.pdf*

An amorphous polymer is one in which the polymer exists in a random unordered structure.

An example of an amorphous polymer is polystyrene. Generally, the structure of the polymer chain is such that it cannot be packed into an orderly network.

*Polimerni materijali*

**Amorfni polimeri imaju nesređenu strukturu, dakle nema geometrijske pravilnosti u rasporedu molekulskih lanaca.**

*polydynamics.com/glossary2.htm*

A polymer having no crystallinity. Polystyrene is an amorphous polymer while HDPE is semi-crystalline.

*Polymer science dictionary, by Mark. s.m. Alger, Google books*

A polymer in which molecular chains exist in the random coil conformation; since there is no regularity of structure, there is no crystallinity. Some polymers which are nominally amorphous may have some short-range order. Use of the term often implies that the polymer is amorphous in the solid state, since polymers are usually amorphous in solution or melt. An irregular conformation is adopted if the molecular structure of the polymer is irregular. Thus atactic polymers, random copolymers and thermoset polymers cannot crystallise due to molecular irregularity and are hence amorphous. Even regular polymers, which normally crystallise, may often be quenched from the melt state to the amorphous state. Amorphous polymers exhibit a strong  $T_g$ , often with additional lower temperature, but weaker, transitions. If non-crosslinked, they are more readily soluble than crystalline polymers. They are normally isotropic (unless oriented) and homogenous. Since they do not contain crystals to scatter light, they are also transparent.

*Reinforced plastics handbook, by Donald V. Rosato, Dominick V. Rosato, John Murphy*

Polymer material having no crystalline plastic structure. These materials form no pattern, whereby their structure tends to form like spaghetti, with their molecules going in all different directions. They have a randomly oriented molecular structure, without a sharp melt point, softening gradually as the temperature rises. The material changes viscosity on heating, but is seldom as easy flowing as crystalline. If it is rigid it may be brittle, unless modified with certain additives. Amorphous polymers are isotropic in flow, shrinking uniformly both in the flow direction and transverse to it. Amorphous polymers lose strength rapidly above their glass-transition temperature. They are usually glassy and transparent, such as polystyrene (PS) and polymethylmetacrylate (PMMA)

### **Amorphous solid**

#### **Amorfna čvrsta tvar**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

A non-crystalline solid material whose microscopic arrangement exhibits no periodicity or long-range order, and whose shear viscosity is large enough that macroscopic shapes are maintained for relatively long periods.

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Tvar u čvrstome agregacijskom stanju koja nema kristalnu strukturu.**

### **Amorphous state**

#### **Amorfno stanje**

*Glosar naziva vezanih uz toplinska i termomehanička svojstva polimera, prijevod J. Macan, 2015*

Stanje tvari za koje je svojstveno nepostojanje molekulske uređenosti dugog dosega.13 Napomena 1: U amorfnom stanju može postojati nešto lokalne uređenosti duljine oko 1 nm. Napomena 2: U odsutnosti naprezanja, struktura i svojstva amornog stanja su, kao i u kapljevinama, izotropni u dovoljno velikom mjerilu.

*I. ŠMIT: Definicije naziva koji se odnose na kristalne polimere, Kem. Ind. 62 (11-12) 417-448 (2013)*

Stanje tvari karakterizirano odsutnošću molekulske uređenosti dugog dosega. U amorfnom stanju može postojati nešto lokalne uređenosti duljine oko 1 nm. U odsutnosti naprezanja, struktura i svojstva amornog stanja su, kao i u kapljevinama, izotropna na dovoljno velikoj skali. Istegnuti amorfni polimer ispod *staklišta* može ostati anizotropan, čak i nakon uklanjanja naprezanja. Međutim, u takvu će polimeru postojati zaostalo zamrznuto naprezanje.

### **Amorphous substance**

#### **Amorfna tvar**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Kondenzirana tvar u kojoj atomi, ioni ili molekule nemaju prostornu periodičnu uređenost  
Eksperimentalnim postupcima ne može se utvrditi ima li amorfna tvar kristalnu strukturu**

### **Amorphous thermoplastic materials**

#### **Amorfni termoplastični materijali**

*Polymer Technology Dictionary, by Tony Whelan*

An amorphous thermoplastic material is usually a hard, clear, rigid material with low shrinkage and a low impact strength, for example polystyrene.

### **Amortisation**

*vidi*

### **Depreciation**

### **Amount of fibres (in a composite)**

#### **Količina vlakana (u kompozitu)**

*Vlaknima ojačani polimeri, II dio, A.Lončar, D. Vojvodić*

Some investigations showed that an increased amount of fibres in the polymer matrix increases the transverse strength and impact strength of the tested samples, fabricated from polymers used for the production of denture bases (7,16). The amount of fibres can be expressed either as a weight percentage, or volume percentage. As the amount of fibres in the polymer base affects the mechanical properties of fibre reinforced composites, it is more correct to express the amount of fibres as a volume percentage. Namely, carbon-graphite fibres, aramide and polyethylene fibres have lower density than glass fibres, which, when presenting data in the form of weight percentage of the fibre share, can lead to false conclusions with regard to the ratio between the fibre share and strength of fibre reinforced composites. However, a greater share of fibres does not necessarily mean greater flexural strength. Factors, such as good impregnation of fibres with the polymer matrix, adhesion of the polymer matrix to fibres for reinforcement and/or characteristics of the fibres themselves contra the characteristics of the polymer matrix, influence flexural strength and can explain why tested samples with a greater share of fibres do not always have better mechanical properties (17).

#### **Amount of substance, Quantity of matter**

##### **Količina tvari, Množina tvari**

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

A measure of the number of entities present in a substance. The entity may be an atom, molecule, ion, electron, photon, etc., or any combination of these. The amount of substance of an element, for example, is proportional to the number of atoms present and the constant of proportionality is the Avogadro constant. The SI unit of the amount of substance is the mole.

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Osnovna veličina sustava veličina ISQ, iskazana je kao omjer mase i molne mase ili kao omjer broja čestica u tijelu ili plinu i Avogadrove konstante.**

#### **Amperage**

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

(1) The strength of an electric current, measured in amperes. (2) The rated current of an electrical component or device.

#### **Ampere**

##### **Amper**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Osnovna jedinica sustava SI za električnu struju. Od 1948. godine amper je definiran kao struja koja teče dvama paralelnim, beskonačno dugačkim i ravnim vodičima zanemarivoga presjeka u vakuumu koji su međusobno udaljeni jedan metar, a među vodičima djeluje sila od  $2 \cdot 10^{-7}$  N po metru duljine.**

*Polymer Technology Dictionary, by Tony Whelan*

Basic SI unit of electric current, with a symbol A. Defined as the current that, when flowing through two, very long parallel wires of negligible cross-section, separated by one meter of vacuum, results in a force between the wires of  $2 \times 10^{-7}$  newtons per meter of length.

*Whittington's Dictionary of Plastics, by James W. Carley*

The primary electrical unit of the SI system, upon which all other electrical units are based. The ampere itself is defined as that current which, if maintained in two long, parallel, fine wires located 1 m apart in vacuum, will produce between these conductors a force of  $2 \times 10^{-7}$  newton per meter of length. Practically, an ampere is the current that flows between two points connected with an electric resistance of one ohm, when their potential difference is one volt.

#### **Ampere's force**

##### **Amperova sila**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Sila koja u magnetskome polju djeluje na vodič kojim teče struja okomito na ravninu koju čine vektor magnetske indukcije i vodič. Upotrebljava se za električni naboj koji je uskladišten u izvorima stalnoga napona. Simbol:  $A_s$**

### **Ampere's rule**

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

The rule stating that the direction of the magnetic field surrounding a conductor will be clockwise when viewed from the conductor if the direction of current flow is away from the observer.

### **Ampere's theorem**

#### **Amperov zakon**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Zakon koji tvrdi da je linijski integral vektora magnetskoga polja po zamišljenoj zatvorenoj krivulji jednak ukupnomu zbroju svih struja koje prolaze unutar te krivulje**

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

The theorem which states that an electric current flowing in a circuit produces a magnetic field at external points equivalent to that due to a magnetic shell whose bounding edge is the conductor and whose strength is equal to the strength of the current.

### **Amperometric titration**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

The use of current to measure the change in the concentration of an analyte. Generally, the potential of the indicator electrode is held fixed with respect to a reference electrode.

*Environmental Engineering Dictionary, edited by C. C. Lee*

(1) A titration by measuring electric current or current change during titration. (2) A way of measuring concentrations of certain substances in water using an electric current that flows during a chemical reaction. (See- Titration).

### **Amphichroic**

#### **Amfikron**

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

A system producing two colours, one in an acid environment and the other in an alkaline medium.

### **Amphiphilic**

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

Having a hydrophobic and a hydrophilic end.

### **Ampholytic detergent**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

A detergent that is both a cation (in acidic solutions) and an anion (in basic solutions), combining detergent and disinfectant qualities.

### **Amphoteric**

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

Compounds which can behave either as normal metallic oxides or hydroxides to form normal salts, or as acids to form salts with alkali metals.

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

Capable of reacting as an acid or as a base, for example  $Al_2O_3$ ,  $Fe_2O_3$  or  $Cr_2O_3$ .

*Whittington's Dictionary of Plastics, by James W. Carley*

Designating an element or compound that can behave either as an acid or a base, i.e. as an electron donor or an electron acceptor. Polymerisation emulsifier having both anionic and cationic groups are called amphoteric emulsifiers.

### **Amphoteric dye**

*healsfang.com/infoleatherterms\_a.html*

Dyestuff which can exhibit the characteristics of either an acid or a base, and could ionise as a coloured cation or anion, according to the pH.

### **Amphoteric surfactant**

*Enviro-solution.com*

A surface-active agent, has the ability to act as a cationic under acid conditions and as a anionic under alkaline conditions. (depends on the pH)

*Naftni rječnik – Perić*

Organska molekula s pozitivno ili negativno nabijenom ili nenabijenom grupom koja je topljiva u vodi, za razliku od anionske (anionic), kationske (cationic) ili neionske (nonionic) površinski aktivne tvari (surfaktanta).

*p2pays.org/ref/13/12194.pdf*

Amphoteric surfactants are not widely used in the textile industry. Their main advantage is the fact that they can be used in alkaline and acid media and in combination with either cationic or anionic surfactants. Nonetheless, they are expensive and their use is required only in specialised situations where wide ranges of compatibility are needed.

*Rhodia*

True amphoteric surfactants contain dual functional groups in the same molecule which, depending on pH, allows them to exist in anionic, nonionic and cationic states. Rhodia is generally recognized as the leading worldwide innovator and manufacturer of this type of secondary surfactants.

*Scienceinthebox*

These surfactants are very mild, making them particularly suited for use in personal care and household cleaning products. They can be anionic (negatively charged), cationic (positively charged) or non-ionic (no charge) in solution, depending on the acidity or pH of the water. They are compatible with all other classes of surfactants and are soluble and effective in the presence of high concentrations of electrolytes, acids and alkalis. These surfactants may contain two charged groups of different sign. Whereas the positive charge is almost always ammonium, the source of the negative charge may vary (carboxylate, sulphate, sulphonate). These surfactants have excellent dermatological properties. They are frequently used in shampoos and other cosmetic products, and also in hand dishwashing liquids because of their high foaming properties. An example of an amphoteric/zwitterionic surfactant is alkyl betaine.

*Textile fibers, dyes, finishes, and processes, by Howard L. Needles*

Surfactants that have both positively and negatively charged hydrophilic groups within the molecule. The detergency of these surfactants varies with pH. Amphoteric surfactants are effective levelling agents and aid in controlled diffusion of dyes and finishes onto the fibre.

### **Amphoteric tannin**

*iultcs.org/leather\_terms/a.asp*

Synthetic organic tanning agent, prepared by condensation of polyhydroxyphenols with aldehydes and bases, possessing both basic groups and acid phenolic groups; acts in acid solution as a cationic tannin.

### **Amplifier**

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*



A device that increases the amplitude of a signal at its input, to give a larger signal at its output.

### **Amplitude**

#### **Amplituda**

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

The maximum displacement above or below the zero point of a wave or a wave function. The energy of a wave is proportional to the square of the amplitude.

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Iznos najveće moguće elongacije ili druge veličine koja se sinusno mijenja tijekom vremena.**

### **Amplitude modulation**

*Dictionary of Ceramic Science and Engineering, By Ian McColm*

One of the main methods of transmitting audio or visual information. The amplitude of the radio frequency carrier wave is modulated by the information that is to be transmitted, while the frequency of the carrier wave remains unchanged.

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Rezultat superpozicije dvaju valova bliskih kružnih frekvencija, pri čemu je frekvencija nastalog vala aritmetička sredina ulaznih frekvencija, dok se njegova amplituda periodično mijenja, uz znatno nižu frekvenciju. Kratica: AM**

### **Ampoule**

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

A small bulbous glass container that may be filled and then sealed by fusion of the neck.

### **Amyl acetate, Banana oil, Pear oil, Amilacetic ester**

*Whittington's Dictionary of Plastics, by James W. Carley*

$\text{CH}_3\text{COOC}_5\text{H}_{11}$ . A commercial solvent for several resins, including the cellulose, vinyls, acrylics, polystyrene and uncured alkyds and phenolics. It has a strong, fruity odour (hence its nicknames), and its main constituent is isoamyl acetate, but other isomers such as normal- and secondary-amyl acetates are present in amounts determined by the grade and origin.

### **Amylase**

*Answers.com*

Any of a group of enzymes that are present in saliva, pancreatic juice, and parts of plants and catalyze the hydrolysis of starch to sugar to produce carbohydrate derivatives.

*Carpet glossary*

A class of enzyme digesters which, when mixed with water, break down starches and carbohydrates.

*list.emich.edu/~dyers/pdfs/dyeglossary.PDF*

Use of amylase enzymes is now the industrially-preferred way of removing starch sizing from textiles. The reaction with the enzyme essentially converts starch to water-soluble sugar.

Unfortunately, amylase enzyme is difficult for the textile artist to obtain.

*Polymer science dictionary, by Mark. s.m. Alger, Google books*

An enzyme capable of degrading starch to maltose.

*Wikipedia*

Amylase is an enzyme that breaks starch down into sugar. Amylase is present in human saliva, where it begins the chemical process of digestion. Foods that contain much starch but little sugar, such as rice and potato, taste slightly sweet as they are chewed because amylase turns some of their starch into sugar in the mouth. The pancreas also makes amylase (alpha amylase) to break down dietary starch into di- and trisaccharides which are converted by other enzymes to glucose to supply the body with energy. Plants and some bacteria also produce

amylase. As diastase, amylase was the first enzyme to be discovered and isolated (by Anselme Payen in 1833).[citation needed] Specific amylase proteins are designated by different Greek letters. All amylases are glycoside hydrolases and act on  $\alpha$ -1,4-glycosidic bonds.

### **Amylopectin**

*Chemistry & Technology of Fabric Preparation & Finishing, by Dr. Charles Tomasino*

Amylopectin is the major component of starch and comprises the outer sheath of the granule. A highly branched, high MW polymer (1.6M), less water soluble than amylose.

### **Amylose**

*Chemistry & Technology of Fabric Preparation & Finishing, by Dr. Charles Tomasino*

Amylose is a linear polymer, molecular weight range 100,000 to 300,000, found in the interior of the starch granule and accounts for 19 to 26% of the weight. It is soluble in hot water; however, when the solution is cooled, it will form strong hydrogen bond between adjacent chains making it difficult to re-solubilize.

### **Anaerobic adhesive**

#### **Anaerobno ljepilo**

*Polymer science dictionary, by Mark S.M.Alger*

An adhesive, usually based on a dimethacrylate monomer, which remain fluid in the presence of air (which inhibits polymerisation), but which cures through polymerisation when applied to a substrate surface, and formed into a closed joint excluding air.

*Whittington's Dictionary of Plastics, by James W. Carley*

An adhesive that cures only in the absence of air after being confined between assembled parts. An example is dimethyl acrylate adhesive, used for bonding assembly parts, locking screws and bolts, retaining gears and other shaft-mounted parts, and sealing threads and flanges.

### **Anaerobic decay**

#### **Anaerobno raspadanje**

*Naftni rječnik – Perić*

Raspadanje (razlaganje) organskih supstancija (tvari) pri potpunom ili gotovo potpunom izostanku kisika. Konačni produkti raspadanja su obogaćeni ugljikom.

### **Anaerobic decomposition**

#### **Anaerobna razgradnja**

*Environmental Engineering Dictionary, edited by C. C. Lee*

(1) A type of decomposition that does not use oxygen. Anaerobic decomposition creates odour problems, aerobic does not. (2) Reduction of net energy level and change in chemical composition of organic matter caused by microorganisms in an oxygen-free environment. (3) The breakdown of molecules into simpler molecules or atoms by microorganisms that can survive in the partial or complete absence of oxygen.

*Problematika zbrinjavanja i pročišćavanja otpadnih voda – zakonski propisi, K.Višić I sur. Tekstil 64/2015*

To je biokemijski proces bez molekularnog kisika, a ulou oksidans imaju različiti izvori anorganskih iona, kao što su nitriti, sulfiti ili karbonati, koji se zatim reduciraju do odgovarajućih spojeva. Anaerobna razgradnja organskih tvari u vodama odvija se u tri faze:

(1) hidroliza, (2) kiselinska fermentacija i (3) metanska fermentacija. Različite bakterije djeluju u svakoj od ovih faza.

#### **Analogue instrument**

##### **Analogni instrument**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Uređaj koji izmjerene ili izračunane vrijednosti neke fizikalne veličine prikazuje u obliku kontinuirane varijable.**

#### **Analoguous colour**

*Color in interior design, by John F. Pile, Google books*

Hues that are close together in a colour wheel are somewhat similar and tend to seem closely related and therefore visually harmonous. Such closely related colours are called analoguous and colour scvhemes that use them are referred to as analoguous schemes. The colours that form an analoguous relationship will usually fall within one-fourth of the full colour circle, that is, within three or four segments of a 12-hue circle or six or seven segments of a 24-hue circle.

*Kellyseverncurtis*

Colors that are closely related because they have one hue in common. For example, blue, blue-violet, and violet all contain the color blue. Analogous colors appear next to one another on the color wheel.

*yushengyang.pbwiki.com/f/Digital+Graphics+Vocabulary+Presentation.ppt*

Colors next to each other on the color wheel. They usually match well and create serene and comfortable designs

#### **Analyser**

##### **Analitizator**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Polarizator koji propušta samo polariziranu svjetlost i zakretanjem otkriva smjer polarizacije**

#### **Analysis**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

(1) The separation of a thing into its constituent parts in order to study its nature. (2) The detection and identification of the chemical composition of a substance, using classical laboratory techniques, microchemical interactions and analytical instrumentation. (3) The separation of light into its prismatic components.

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

The determination of the identity and/or concentration of the constituents in a material.

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

The separation and measurement of the constituents of a substance, and the interpretation of these results. Also identified as a chemical content, mineral content and physical properties.

#### **Analysis of variance**

*Whittington's Dictionary of Plastics, by James W. Carley*

A statistical method whose central principle is the partition of the total sum of squares of a set of measurements about their own mean into additive components, and the parallel partition of the total degrees of freedom in the sample, so that, when the several sums of squares are divided by their assigned degrees of freedom, the resulting mean squares for effects (experimental factors) of sources of variations may be rigorously compared with an error mean square (error variance) to judge their statistical significance and relative importance. AOV is a powerful technique, particularly when qualitative factors, such as different

machines, materials, or operators are involved, or when no credible chemical or physical models are known for the system under study.

### **Analyte**

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

The substance in an analysis that is being identified or determined.

*Environmental Engineering Dictionary, edited by C. C. Lee*

(1) A chemical substance whose presence and/or concentration in a sample is determined. (2) A substance measured in a laboratory. A chemical for which a sample (such as water, air, blood, etc.) is tested in a laboratory. (3) The element, compound or species that is detected and determined through analysis. Analytical methods require calibration for quantification of specific analytes.

### **Analytical balance**

*Chem.ubc.ca*

An electronic scale that can measure the mass of an object to an accuracy of  $\pm 0.0001$  grams.

*resil.com/c.htm*

A device for accurately weighing small swatches A device for accurately weighing small swatches or small amounts of ingredients.

*Wikipedia*

An analytical balance is an instrument that's used to measure mass to a very high degree of precision. The weighing pan(s) of a high precision (.01 mg or better) analytical balance are inside a transparent enclosure with doors so dust does not collect and so any air currents in the room do not affect the delicate balance. The use of a vented balance safety enclosure that has uniquely designed acrylic airfoils allows a smooth turbulence-free airflow that prevents balance fluctuation and the weighing of mass down to 1 $\mu$ g without fluctuations or loss of product. Also, the sample must be at room temperature to prevent natural convection from forming air currents inside the enclosure, affecting the weighing. Analytical precision is achieved by maintaining a constant load on the balance beam, by subtracting mass on the same side of the beam that the sample is added. The final balance is achieved by using a small spring force rather than subtracting fixed weights.

### **Analytical batch**

#### **Količina za analizu**

*Environmental Engineering Dictionary, edited by C. C. Lee*

The basic unit for analytical quality control. It is defined as the samples that are analysed together, with the same method sequence and the same lots of reagents, and with the manipulations common to each sample within the same time period or in continuous sequential periods. Samples in each batch are of similar composition.

### **Analytical chemistry**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

A branch of chemistry that deals with the identification of substances and the determination of the precise amount or composition of substances within a chemical system.

*biochem.northwestern.edu/holmgren/Glossary/Definitions/Def-A/analytical\_chemistry.html*

The branch of chemistry involved with the measurement of molecules without any particular regard to what the molecule is.

*biology-online.org/dictionary/Analytical\_chemistry*

The branch of chemistry that deals with the quantitative and qualitative identification of substances.

[chemistry.about.com/od/chemistryglossary/a/analyticaldef.htm](http://chemistry.about.com/od/chemistryglossary/a/analyticaldef.htm)

Analytical chemistry is the chemistry discipline concerned with the chemical composition of materials. Analytical chemistry also is concerned with developing the tools used to examine chemical compositions.

[labgistics.com/misc\\_glossary.html](http://labgistics.com/misc_glossary.html)

A sub-discipline of chemistry which involves the identification of different types of chemicals, their characteristics and quantities in which they are present.

[nhml.com/resources\\_NHML\\_Definitions.cfm](http://nhml.com/resources_NHML_Definitions.cfm)

The science of chemical characterization and measurement. Qualitative analysis is concerned with the description of chemical composition in terms of elements, compounds, or structural units; quantitative analysis is concerned with the precise measurement of amount. A variety of physical measurements are used, including methods based on spectroscopic, electrochemical, radiochemical, chromatographic, and nuclear principles.

[springerlink.com/content/m8um185g1526k435/](http://springerlink.com/content/m8um185g1526k435/)

Analytical Chemistry is the application of principles of analytical measurement to generate information about chemical systems or to solve chemical problems as well.

### **Analytical curve**

#### **Analitička krivulja**

*INSTRUMENTALNE KEMIJSKE METODE I DIO, Milan Tomljanović Zenica, 2000.*

Analitička krivulja je grafički predstavljena zavisnost odnosa intenziteta analitičke linije i linije referentnog elemenata i koncentracije analiziranog elementa iz serije standarda. Za crtanje analitičke krivulje koristi se nekoliko metoda:

- metoda tri standarda
- metoda permanentnog grafika
- metoda dodatka.

### **Analytical distillation**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

The vapourisation and recondensation of a liquid mixture for the purpose of determining its components by comparing their respective boiling points.

### **Analytical electron microscopy**

#### **Analitička elektronska mikroskopija**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

The use of characteristic X-rays produced by electron-specimen interaction in a scanning electron microscopy to obtain quantitative chemical composition data by analysing their wavelengths.

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Elektronska mikroskopija koja omogućuje istovremeno promatranje povećane slike i određivanje elementnoga sastava uzorka.**

### **Analytical extraction**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

A separation technique in which soluble parts of a mixture are removed by dissolution. Often used to extract pure metals from their ores.

### **Analytical mechanics**

#### **Analitička mehanika**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Usavršeni oblik klasične teorijske mehanike koji je sastavljen od Lagrangeove i Hamiltonove mehanike**

**Analytical technique**

**Anališka tehnika**

*ISACA® Glossary of Terms English - Slovenian*

The examination of ratios, trends and changes in balances and other values between periods to obtain a broad understanding of the organization's financial or operational position and to identify areas that may require further or closer investigation. Scope Note: This technique is often used when planning the assurance assignment.

**Anaphe, Anaphe silk**

*Dictionary of Text 00*

Wild silk of reddish brown color, similar to Tussah, produced by a genus of African gregarious moth.

*fibre 2 fashion*

a wild silk from the larvae of the anaphe moth.

*Mercury dictionary*

A species of wild silk produced in Africa by the Anaphe silkworm—it is reddishbrown colour somewhat like tussah silk (see Anaphe Silkworm)

**Anatase titanium dioxide**

*Encyclopedic Dictionary of Polymers, Volume 1 edited by Jan W. Gooch TiO<sub>2</sub>.*

Pigment white 6 (77891). A high opacity, bright pigment of the chalking type, used as a prime pigment in paints, rubber, plastics. Prepared from the mineral, ilmenite, or rutile ore. Density, 3.8–4.1 g/cm<sup>3</sup> (32–34 lb/ gal); O.A., 18–30; particle size, 0.3 μm, refractive index, 2.55. Syn: titania. See also titanium dioxide, rutile.

*Polymer science dictionary, by Mark S.M. Alger*

TiO<sub>2</sub>: A particular crystalline form of titanium dioxide useful as a pigment in polymers when exceptional whiteness is required. Its use is restricted, compared with the other crystalline form, rutile, due to its action as a photosensitizer in many polymers.

**Ancelia**

*antique vintage dictionary*

fabric used in the past for dresses which has a hard twist cotton warp and a wool weft

*Mercury dictionary*

A dress fabric made of a cotton warp and mixed wool weft. Pattern is formed by using cotton and wool weft, which, when dyed, produced contrasts in colours

**Anchor bolt**

**Sidreni vijak, Vijak za temeljenje**

*struna\_knj\_14\_strelementi\_04(1381).pdf – Foxit Reader*

**Vijak kojim se strojevi i uređaji pričvršćuju za svoje temelje.**

**Anchorage**

*vidi*

**Centre of gravity**

**Ancillary equipment**

**Pomoćna oprema**

*Environmental Engineering Dictionary, edited by C. C. Lee*

Any device including, but not limited to, such devices as piping, fittings, flanges, valves and pumps, that is used to distribute, meter, or control the flow of hazardous waste from its point

of generation to a storage or treatment tank(s) between hazardous waste storage and treatment tanks to a point of disposal on site, or to a point of shipment for disposal of site.

**Anecalc™:**

*Anefid Glossary of textile terms*

A tool for calculating the thread consumption for a sewn product, the estimated number of cones required for a quantity of sewn items being produced, and the estimated thread cost per sewn item. ANECALC™ is a tool that can be used to compare the thread cost using different thread types and sizes. It is also used as a tool to show the value of using high performance sewing threads.

**Anecord®**

*Anefid Glossary of textile terms*

A&E's brand name for a nylon monocord thread that is made from a number of nylon continuous filaments that have been brought together with a low degree of twist and then bonded together. Anecord threads are flat and ribbon-like providing a lower seam profile and excellent loop strength. Anecord Bobbins™ have more yardage than twisted multi-filament bobbins and they are available either sided or sideless. Registered trademark of A&E.

[zabin.com/thread/aneofil.html](http://zabin.com/thread/aneofil.html)

Anecord® is a monocord thread construction made from continuous filaments of nylon that have been slightly twisted and then bonded together. Anecord® nylon threads are treated with a high-performance lubricant to ensure sewability on heavy-duty sewing applications such as leather or canvas. Anecord® threads are very flat and ribbon-like due to their non-twisted construction. It is characterised by (1) exceptional uniformity in all physical properties, (2) minimum yarn imperfections for minimum interruptions, (3) very high seam strength and durability, (4) stronger than other thread constructions, (5) low seam profile contributing to excellent abrasion resistance, and (6) available as a needle thread or on precision ready-wound bobbins

**Anecord poly®**

*Anefid Glossary of textile terms*

A&E's brand name for a polyester monocord thread that is used in applications requiring good UV resistance including awnings, tents, covers, and boat tops. A registered trademark of A&E.

**Anecot® , Anecot Plus®, Anecot® X-tra**

*Anefid Glossary of textile terms*

A&E's brand name for 100% CP cotton threads. Anecot Plus® is a CS cotton sewing threads that has a higher tenacity than Anecot® threads, allowing the use of smaller thread sizes.

Anecot X-tra is designed to minimize seam failures during over-dyeing on regular, stretch denim and corduroy garments. Registered trademarks of A&E.

**Anefil nylon® and Anefil poly®**

*Anefid Glossary of textile terms*

A&E Brand names for twisted multi-filament sewing threads used for sewing applications such as footwear, luggage, automobile applications, upholstered furniture, mattress, & bedding, etc. They are very strong for their size and very uniform in their physical properties. Both are available either "soft" or with an additional "bond" for better ply adhesion and abrasion resistance. Registered trademarks of A&E.

[zabin.com/thread/aneofil.html](http://zabin.com/thread/aneofil.html)

Anefil® is a twisted multifilament thread construction made from continuous filaments of polyester or nylon that have been twisted together and then plied to hold the fibers together. Anefil Nylon® or Anefil Poly® threads are available with either a Soft finish or with an additional Bonded finish for a high-performance lubricant to ensure sewability on heavy-duty sewing applications such as leather or canvas. Exceptional uniformity in all physical properties. It is characterised by (1) minimum yarn imperfections for minimum interruptions, (2) very high seam strength and durability, (3) stronger than other thread constructions, (4) exceptional abrasion, mildew, UV and chemical resistance, (5) twisted high quality stitch appearance, (6) available as a needle thread or on precision ready-wound bobbins, and (7) more yards can be wound on a bobbin

### **Anefil® kevlar ®**

*Anefid Glossary of textile terms*

A&E thread of twisted multi-filament sewing threads used for sewing applications that require tremendous tensile strength and resistance to heat degradation. Also see Kevlar®.

### **Anelastic strain**

*vidi*

### **Plastic deformation**

### **Anelasticity**

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

Dependence of elastic strain on both stress and time. This can result in a lag of strain behind stress. In materials subjected to cyclic stress, the anelastic effect causes internal damping.

### **Aneroid barometer**

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

A barometer in which variations in atmospheric pressure are measured by fluctuations of a thin elastic metal, covering a partially evacuated chamber and indicated by a pointer on a calibrated dial.

### **Angelina fibre**

*Burdastyle*

a very fine metallic fiber, as small as 10 denier. It reflects and refracts light and is very luminescent while also soft to the hand. When blended with other fibers, even in the smallest quantity it gives great shimmer to the surface of the design.

*Fibrecrafts*

Angelina fibres are 15 denier heat-bondable synthetic fibres. The colours are shimmering and highly reflective - adding a new dimension to embroidery, cardmaking, papermaking or feltmaking. They are soft to handle and can be combined with other fibres to create shimmering hand-spun yarns. It is very difficult to photograph their true reflective qualities. Angelina fibres have a low melting point and can be fused together to make a flat sheet to cut or work into. They are placed between baking parchment and ironed briefly to create a luminescent web of non-woven fabric.

*Texturatrading*

Angelina Fiber is a new, very fine (sized as small as 10 denier), unique fiber. Light reflective, as well as light refractive, Angelina is incredibly luminescent, while (unlike regular metallics) it has an extremely soft hand. Blended with other fibers in amounts as small as 2%, it gives sparkle and highlight to your yarn.

### **Angle, Planar angle**

#### **Kut, Ravninski kut**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*



**Bezdimenzijska veličina, omjer luka koji iz kružnice izrezuju dvije zrake koje izlaze iz središta kružnice i polumjera te kružnice.**

**Angle joint**

*vidi*

**Mitre joint**

**Angle of contact**

*vidi*

**Contact angle**

**Angle of deviation**

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

The angle between the refracted ray and the incident ray, when a ray of light passes from one medium to another.

**Angle of friction, Angle of repose, Friction angle**

**Kut mirovanja, Kut trenja**

*answers.com/topic/angle-of-repose*

The angle between the horizontal and the plane of contact between two bodies when the upper body is just about to slide over the lower.

*ccmsn.cn/news/newslist/05c0cba8-8430-4c4b-aaeb-2b2fb178a653.htm*

The maximum angle from horizontal at which a given material will rest on a given surface without sliding or rolling.

*Environmental Engineering Dictionary, edited by C. C. Lee*

(1) The angle at which matter will lie or stack in a stationary configuration. (2) The maximum angle from horizontal at which a given material will rest on a given surface, without sliding or rolling.

*građevinarstvo \_ Struna \_ Hrvatsko strukovno nazivlje.html*

**Kut čiji je tangens jednak omjeru posmične sile po jedinici površine i normalnoga napreznja između dvaju materijala. Kut trenja izražava se u stupnjevima.**

**Vrijednost  $\tau$  u formuli predstavlja smično napreznje, a  $\sigma$  normalno napreznje pri kutu  $\beta$ . Simbol:  $\varphi$ .**

*Textilesintelligence*

an angle, the tangent of which is equal to the ratio of the friction force per unit area and the normal stress between the two materials and quantifies soil geotextile friction.

*Wikipedia.org*

an engineering property of granular materials. It is the maximum angle of a stable slope determined by friction, cohesion and the shapes of the particles.

**Angle of incidence, Brewster's angle, Incidence angle, Incident angle**

**Brewsterov kut, Kut upada, Upadni kut**

*203.158.6.144/Astm/cd060105/PDF/E284.pdf*

the angle between a ray impinging on a surface at a point and the perpendicular to the surface at that point. In the description of a beam, the angle of incidence of the ray at the center of the beam.

*answers.com/topic/angle-of-incidence*

The angle formed by a ray incident on a surface and a perpendicular to the surface at the point of incidence.

*ceere.org/beep/docs/FY2001/NFRC Glossary.pdf*

The angle between a ray and the normal to the plane on which it is incident.

*Encyclopedic Dictionary of Polymers, Volume 1 edited by Jan W. Gooch*

The angle between the incident ray and a normal to the surface at the point of incidence. It is the same as "entrance angle" in SAE automotive nomenclature.

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**(1) Kut prema okomici pod kojim zraka svjetlosti mora upasti na granicu dvaju optičkih sredstava da bi reflektirana zraka bila polarizirana. (2) Kut između zrake koja pada na plohu i okomice na plohu u dodirnoj točki zrake i plohe.**

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

The angle between a ray of light at a surface and a line perpendicular to the surface.

*munsellstore.com/(S(lczhp4b5lnufeg45u1bplj55))/default.aspx?act=faq.aspx&category*

The angle at which a beam of light strikes the surface of an object compared to the perpendicular to the object surface.

*Naftni rječnik – Perić*

U optici – oštri kut pod kojim zraka pada na liniju okomitu na površinu razdjela, oštri kut koji čini zraka energije (ray of energy), na primjer optičke, zvučne, seizmičke ili elektromagnetske, s normalom na površinu razdjela, na primjer, padanje seizmičkog vala na sloj. Okomiti upad (normal incidence) jest slučaj kada je kut upada jednak nuli, fronta vala paralelna s površinom, a njegova zraka okomita na površinu razdjela. Kut upada je komplement izlaznog kuta (angle of emergence). Zavisnost između kuta upada i kuta refrakcije (loma) opisuje Snellov zakon (Snell's law). Sinonimi: Brewster angle, incident angle.

*Wikipedia.org*

In geometric optics, the angle of incidence is the angle between a ray incident on a surface and the line perpendicular to the surface at the point of incidence, called the normal. The ray can be formed by any wave: optical, acoustic, microwave, X-ray and so on. In the figure above, the red line representing a ray makes an angle  $\theta$  with the normal (dotted line). The angle of incidence at which light is first totally internally reflected is known as the critical angle. The angle of reflection and angle of refraction are other angles related to beams.

### **Angle of minimum deviation**

#### **Kut najmanjeg odklona**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Kut između smjera upadne zrake i okomice na prednju plohu optičke prizme za koji je odklon od početnoga smjera svjetlosne zrake najmanji. Za taj upadni kut zraka kroz prizmu prolazi simetrično.**

### **Angle of reflection**

#### **Kut refleksije**

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

The angle made by the refracted part of a light ray with a line perpendicular to the surface of the refracting medium through the point of incidence of the refracted ray.

*Naftni rječnik – Perić*

U optici i seizmici – kut između smjera širenja vala, reflektiranog od površine, i linije koja je okomita (okomice) na površinu u točki refleksije. Sinonim: reflection angle.

### **Angle of refraction, Refraction angle**

#### **Kut refrakcije, Kut loma, Lomni kut**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Kut između zrake slomljene pri prolasku kroz graničnu plohu između dvaju sredstava i okomice na tu plohu u točki prolaska.**

*Naftni rječnik – Perić*

U optici i seizmici – kut između smjera širenja vala, refraktiranog (prelomljenog) od površine, i linije koja je okomita (okomice) na površinu u točki refrakcije (loma). Sinonim: refraction angle.

**Angle of repose**

*vidi*

**Angle of friction**

## Angle of slope

*vidi*

## Slope angle

### Angle of viewing

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

Angle between the axis of a detected light beam and the perpendicular to the object surface.

### Angle of weave

[healsfang.com/infoleatherterms\\_a.html](http://healsfang.com/infoleatherterms_a.html)

Fibre pattern within the hide or skin. Can be genetic or process related. Horizontal fibre defect is where the corium fibres are orientated horizontal to the grain surface and are parallel and not interlaced. Vertical fibre defect is where fibres passing from the epidermal layer to the corium are orientated vertically to the grain surface.

### Angle of wind

#### **Kut prematanja**

*HAND BOOK ON GLOSSARY OF TEXTILE TERMS, BUREAU OF INDIAN STANDARDS NEW DELHI 110 002, UDC 001.4/677 (021) ISBN 81-7061-009-5*

The angle contained between a wrap of yarn on the surface of a package and the diametrical plane of the package.

Note - Other angles are yarn-crossing angle and yarn-reversal angle.

### Angle-ply laminate

[composite.about.com/library/glossary/a/bldef-a349.htm](http://composite.about.com/library/glossary/a/bldef-a349.htm)

One possessing equal plies with positive and negative angles. This is a bi-directional orthotropic laminate, such as a  $[\pm 45^\circ]$ .

[composite.about.com/library/glossary/l/bldef-l3001.htm](http://composite.about.com/library/glossary/l/bldef-l3001.htm)

Consists of an arbitrary number of layers identical in thickness and material and having alternating directions  $+x$  and  $-x$ .

[composites.ugent.be/home\\_made\\_composites/documentation/Glossary\\_of\\_textile\\_terms\\_for\\_composites.pdf](http://composites.ugent.be/home_made_composites/documentation/Glossary_of_textile_terms_for_composites.pdf)

A laminate formed **with** fibers of adjacent plies oriented at **alternating angles**, e.g.  $[0,-0]$ .

*Introduction to the Dimensional Stability of Composite Materials, by Ernest G. Wolff, Google Books*

An angle-ply laminate means all the layers have either  $+0$  or  $-0$  orientations to the principal axes (implying that no layer is either  $0^\circ$  or  $90^\circ$ ). If there are equal number of layers in the two directions, then  $A_{16}$  and  $A_{26}$  are each zero, since these are balanced laminates. A merely symmetric angle-ply laminate must have an odd number of plies and may have as few as three layers.

*Polymer science dictionary, by Mark S.M. Alger*

A laminate in which the angle of fibres in adjacent plies alternates, or more generally, in which there are plies at an angle other than  $0^\circ$  or  $90^\circ$  to the reference direction. In the simplest, symmetrical case, half the plies are at  $+\Theta^\circ$  and half at  $-\Theta^\circ$ , as used in filament wound products such as pressure pipes and bracing plies in tyres.

*Whittington's Dictionary of Plastics, by James W. Carley*

A laminate in which equal number of plies are oriented at equal plus or minus angles from the plies in the length direction, making the laminat orthotropic. The most commonly chosen angles are  $\pm 60^\circ$ , giving nearly equal strengths in all directions in the plane of the laminate. See Cross laminate.

### Angle valve

## **Kutni ventil**

*Naftni rječnik – Perić*

Ventil s ručnim upravljanjem čiji je izlazni otvor orijentiran pod pravim kutom (90°) prema njegovu ulaznom otvoru. Primjenjuje se za regulaciju strujanja fluida u cijevima.

## **Angled draft**

*ets.ru/pg/img/mercury\_dictionary\_of\_textile\_terms\_polyglossum.pdf*

A method of drawing threads through the healds from front to back and then back to front, so that reverse weave designs are produced. The American meaning of this term differs slightly from above. They draw the warp threads straight for a certain number and then reverse, but the starting shaft for the reverse is on a shaft about half-way between No. 1 and the last shaft as shown in the diagram, where both styles are given. A shows the first, which is actually a "point draft," and B shows the real angled draft

*Texmachinery*

Also called Point draw. A kind of drawing-in draft in which the warps or ends are drawn through the harnesses in regular sequence, first in one direction, then in the other.

## **Anglehead adapter**

### **Kosi adapter**

*Polymer Technology Dictionary, by Tony Whelan*

An adapter which changes the direction of melt flow, that is, it swings the melt through an angle of, for example 60°.

## **Angola, Angola cloth**

*Dry goods*

A diaper-woven cotton cloth with a fine rough face, somewhat resembling a momie-weave. It is usually a cream color, and is employed for embroidery purposes.

*Mercury*

A cotton embroidery fabric, dyed cream colour, woven in small check effects of the diaper style. Yarns are about 18's to 24's for both warp and weft, and in various reeds and picks, but all low to give an open fabric. Made in 54-in.

## **Angola yarn**

*Future textiles*

A yarn spun on the woolen system from a mixture of wool and cotton or other fibres.

*Mercury*

A yarn spun from a mixture of wool and cotton, generally 80 per cent wool, 20 per cent cotton. This quality is known as "80/20" angola. The percentage varies. Used for shirtings called "Angolas," also for cheap dress fabrics. The wool is generally shoddy or mungo

## **Angora goat (Capra Hircus Aegagrus)**

*antique vintage dictionary*

Angora wool is a soft fibre from the angora rabbit. Used for sweaters and baby clothes

*Ca-bc.com/zip\_internacional/usedmach/education/*

1. The hair of the Angora goat. The long, fine fibers are so smooth and soft that they must be combined with other fibers in weaving. 2. The hair of the Angora rabbit. The fine, lightweight hair is warm, and it is often blended with wool to decrease price and to obtain novelty effects in weaving. By law, the fiber must be described as Angora rabbit hair.

*chezshazz dictionary*

The hair of the Angora goat. Also known as angora mohair. Angora may also apply to the fur of the Angora rabbit.

*chinese doll glossary*

Soft hair from goat used for early doll wigs.

*Dry goods*

Of all animals whose fleece is largely used in the manufacture of fabrics, there is probably none so little known as the Angora goat. And when Mohair dress goods, Mohair plush or Mohair laces are mentioned it is exceedingly unlikely that one dry-goods salesman out of ten can tell whence comes the raw material out of which the goods are manufactured.

These goats derive their name from Angora, a city in Asia Minor, 217 miles southeast of Constantinople. There is no historical mention of them previous to the 10th century, and it was not until 1820 that Mohair became a steady article of import into England. The Angora goat should not be confounded with our common goat, nor with the Cashmere goat, which are quite different species. The fleece of the Angora is soft and silky and the whitest known to the trade, elastic and wiry in character, covering the whole body and the greater part of the legs with close-matted ringlets, which attain a length of 4 to 5 inches. The fleece is composed of two kinds of hair; that next to the skin being short and coarse, the other being curly and lustrous, both however, being totally devoid of felting properties. The goats are sheared in the early spring, and the average yield per goat is about 21/2 pounds. The best quality comes from Constantinople. The care of these goats is the chief industry of Turkish people in the Angora districts. Each farmer possesses not to exceed 20 or 30 to which he gives the greatest care, in many instances living under the same roof with them. They are washed and curried several times a week, for greater the care, the more hair is produced. The fineness of the fleece is due in a large measure to the climate and soil. The amount of wool produced by the Angora district amounts to about 5,250,000 pounds yearly, but of this only about 1,000,000 pounds can be picked out for the finest grade of upholstery and car plushes. In the year 1845, the increasing demand for, and value of Mohair stimulated endeavors to acclimatize the Angora goat in other regions. All European endeavors having failed on account of the extremely damp and uncongenial climate of that country, in 1849 Dr. J. P. Davis imported some flocks to America. They are now found in large numbers both in the South and far West, New Mexico, California and Oregon. It is only in high altitudes and dry atmosphere that the flocks will thrive. The annual product of American fleeces averages about 700,000 pounds. The climate and soil of New Mexico is especially favorable for Angora flocks and there they multiply rapidly, the ewes always bearing two and frequently three kids at a litter, twice a year. The American Angoras, however, are not the pure breed, and consequently produce an inferior quality of Mohair. The Turkish government issued an edict many years ago against the exportation of these goats, hence the American raisers are obliged to replenish their flocks with Angoras from other districts in Asia. Whether the United States can produce Mohair of the best quality is yet to be determined, for it is well known that certain localities possess specific qualities for the production of wool or hair of a distinct character. This was shown many years ago, when the rage for bright-haired dress goods was so marked as to suggest that the supply of bright-haired wool was inadequate to the demand. The peculiarities of a district for growing wool or hair of a certain character are hard to explain, but experience has shown that a locality will produce to advantage only one class of wool or hair. This is illustrated by the history of the growth of what are known to the trade as "lustre wools." Of all the wide area on the earth's surface that produces wool, no localities produce wools of pure lustre except certain districts in England, comprising the counties of York, Nottingham, Lincoln, Leicester and Northumberland. These will produce bright wool and no other. It is not alone in the breed of sheep raised there for if this breed is taken elsewhere from its own pasture ground, the character of the wool deteriorates, and after the first year ceases to be sold as lustre

wool. On the other hand if any breed of sheep are taken to the favored lustre districts to be wintered and shorn, the fleece possesses almost as much luster as that of the sheep that has been raised there. Numerous attempts to produce luster wool, made in what are regarded as the best districts in the United States for wool growing, have failed to maintain in the sheep those qualities which in its original home produced the finest lustre wool. To use the phrase of the trade, the "breed grows out," and the sheep soon become identical, as regards the fleece, with all others that have been reared in the locality. What is true of one animal fiber is true of others, and while there is no doubt that the Angora goat will live and thrive in the United States, the question to be decided by experience is, whether it will in any other than its native place produce its characteristically beautiful, silky, lustrous fleece.

Mohair, as the hair or wool of the Angora goat is called, is a brilliant, elastic, tough, wiry fibre of enormous durability, and, owing to its elasticity, is well adapted for pile fabrics, such as plush, carriage and lap robes, or in braids, bindings, shoelaces and other purposes, the number of which is only limited by the supply of raw material. It is also used for making Utrecht velvet, or furniture plush, for the upholstering of railway cars, etc. The mohair used in the manufacture of seal plushes for ladies' cloaks, is made from the first clip in the second year of the animal, and is hard to obtain, selling at Constantinople at seventy-five cents per pound. Until the last few years England held an entire monopoly of the spinning and manufacture of mohair, but after many attempts our manufacturers have succeeded in making goods that not only compare favorably, but excel those of the best English makes. [See Mohair]

*Edwardhiller*

A silky soft natural hair fiber from the Angora goat or rabbit. Angora is most commonly used in fabrics made into sweaters and scarves

*fibre2fashion*

the hair of the Angora rabbit. The origin of the Angora breed is unclear. It is believed to come from France, developed from a mutation in a wild rabbit, in the 18th century. Note: the hair of the Angora goat is referred to as mohair.

*Greengeneration.co.uk*

The hair of the Angora goat or the Angora rabbit. The clipped fiber from a living animal is also known as Angora mohair. Scoured mohair appears smooth and white. It varies in fineness and is highly resilient, very strong and has high luster. Its value is determined by its luster and not its softness. The Angora rabbit is indigenous to Asia Minor and Turkey. It is often blended and mixed with wool to lower the price of the finished. Angora rabbit hair is long, very fine, light weight, extremely warm and fluffy. It has a tendency to shed and mat with time. According to the U.S. Federal Trade Commission, any apparel containing Angora rabbit hair must be labeled as "Angora rabbit hair" on the garment.

*Interior Textiles: Design and Developments, edited by T Rowe*

Mohair, the lustrous fleece of the Angora goat is one of the most important specialty animal fibres. It represents less than 0,02% of the total world fibre production. It is known for its unique high lustre, durability, elasticity, good insulation and extreme softness of touch. It is generally a long, straight and smooth fibre, which can be dyed to deep, brilliant and fast colours. According to the mean fibre fineness, mohair is generally classified into Kid mohair, Young mohair and Adult mohair. White is usually the general colour of mohair, but brown, black or red varieties can also be found. The diameter of elementary fibres is about 24-40 µm. At present, mohair is produced in South Africa, the USA, Turkey, Argentina, Australia and New Zealand. Mohair finds applications in a wide range of apparel textiles and household textiles, such as upholstery fabrics, curtains, carpets, rugs and mats, cushion covers, blankets, pillowcases, duvets, mops and tapestries.

*newcitycleaners*

Angora rabbit fiber is a relative newcomer in the history of human civilization. Although French Angora rabbits were initially kept as curious pets by royalty, it was the French, calling them 'lapins de soie' or 'silk rabbits', who first saw the commercial possibilities of this luxuriously long silky fiber. And in Germany the Angora rabbit was known as the 'menschenheilkanchen' -- the mystical magical human healing rabbit -- because of the reputed effectiveness of clothing made from its fiber to remedy the pain of arthritis and rheumatism by keeping muscles and joints warm and dry. For proper care of angora garments, professionally dry cleaning is recommended. Proper storage of angora sweaters and garments is also recommended.

#### *Technical centre*

The hair of the Angora goat. Also known as Angora mohair. Angora may also apply to the fur of the Angora rabbit. However, according to the U.S. Federal Trade Commission, any apparel containing Angora rabbit hair must be labeled as "Angora rabbit hair" on the garment.

#### *Texsite*

Midweight wool fabric which is soft, even soapy to the touch; of a pile which lightly covers the texture of linen, twill or satin weave. Produced with the hair of the Angora rabbit in various proportions, which provides by its characteristic longer fibres its feel and appearance. Used for ladies' dresses and suits. The name is derived from the hair of the Angora rabbit. [yukonfood.com/FibreMillReport.pdf](http://yukonfood.com/FibreMillReport.pdf)

Angora wool can be harvested year round, and most fibre enthusiasts do this by holding the rabbit on their lap and either combing, plucking or hand shearing. The fibre from a well-groomed animal will not require washing or carding. Angora wool has a superior ability to retain dye colour. Angora wool is normally mixed with other soft fibres such as silk, cashmere, mohair or sheep's wool when knitted into clothing. Garments made of 100% Angora would be too warm, and the texture too fine to provide density in knit stitches.

### **Angora cashmere**

#### *Dry goods*

A term employed to denote a certain kind of cloth made in imitation of camels'-hair cloth, which is made of the long, white hair of the Angora goat of Turkey. Angora Cashmere is twilled like common cashmere; is of a light quality, and in width 27, 48 and 54 inches.

#### *Mercury dictionary*

A fine mohair dress fabric woven in the 2 X 1 cashmere twill weave. It is a light-weight material and is given a soft finish

### **Angström**

#### **Angstrom**

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

A length equal to  $10^{-10}$ m, used primarily to express wavelengths in the X-ray region and to denote the size of X-ray unit cell dimensions of crystal structures.

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Izvangustavna jedinica za duljinu jednaka jednoj desetinki nanometra. Upotrebljava se u atomskoj fizici, kristalografiji i kemiji.**

### **Angular acceleration**

#### **Kutno ubrzanje, Kutna akceleracija**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Derivacija kutne brzine po vremenu. Kutno ubrzanje druga je derivacija kuta po vremenu.**

### **Angular belt drive**

#### **Kutni remenski prijenos**

*struna\_knj\_14\_strelementi\_04(1381).pdf – Foxit Reader*

**Remenski prijenos s pomoćnim remenicama pri kojemu se osi glavnih remenica sijeku.**

### **Angular dispersion**

#### **Kutna disperzija**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Veličina koja iskazuje disperzijsku djelotvornost optičke rešetke. Kutna disperzija je omjer razlike obojnih kutova i pripadne razlike susjednih valnih duljina.**

### **Angular displacement**

#### **Kutni pomak**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Kut za koji se tijelo pri kružnome gibanju zakrene tijekom nekoga vremena.**

### **Angular frequency**

#### **Kutna frekvencija**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Veličina karakteristična za harmonijsko periodično gibanje, jednaka je umnošku frekvencije s  $2\pi$ .**

### **Angular impulse**

#### **Impuls momenta, Kutni impuls**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Integral momenta sile po vremenu. Za stalni moment sile, kutni je impuls umnožak momenta sile i vremena tijekom kojega je djelovala sila. Prema drugome Newtonovu zakonu kutni je impuls jednak razlici zamaha između konačnoga i početnoga stanja gibanja.**

### **Angular magnification**

#### **Kutno povećanje**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Omjer tangensa kutova pod kojim se predmet vidi kroz povećalo i tangensa kutova pod kojim se vidi bez povećala.**

### **Angular momentum**

#### **Kinetički moment, Kutna količina gibanja, Kutni moment, Moment količine gibanja**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Veličina koja opisuje rotaciju čestice ili tijela, vektorski umnožak vektora položaja čestice i vektora zaleta.**

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

A vector quantity. The product of the momentum of a rotating body and its distance from the axis of rotation.

### **Angular pitch**

#### **Kut koraka**

***struna\_knj\_14\_strelementi\_04(1381).pdf – Foxit Reader***

**Kvocijent punoga kutova i broja zuba zupčanika.**

**Angular speed, Angular velocity, Rotating speed, Rotation speed, Rotational speed, Rotational velocity, Rotativa speed, Speed of revolution, Speed of rotation, Speed of torque**

#### **Brzina rotacije, Brzina vrtnje, Kutna brzina**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Vektor koji ima smjer osi vrtnje pri kružnome gibanju čestice ili krutoga tijela, a iznos mu je određen derivacijom kutova po vremenu.**

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

The velocity of a body rotating about a fixed point, measured as the rate of change of the angle subtended at that fixed point by the path of the body.

***struna\_knj\_14\_strelementi\_04(1381).pdf – Foxit Reader***

**Brzina okretanja izražena u radijanima u sekundi.**



Tuu kutni temenski prijenos

### **Anharmonic effect**

#### **Neharmonijski efekt, Neharmonijski učinak**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Titranje čestice koje se ne može prikazati harmonijskom funkcijom.**

### **Anhydride**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

A substance that is derived from an acid when water is removed, or that becomes an acid in presence of water, e.g. carbon dioxide  $\text{CO}_2$  is the anhydride of carbonic acid  $\text{H}_2\text{CO}_3$ .

*Britannica*

any chemical compound obtained, either in practice or in principle, by the elimination of water from another compound. Examples of inorganic anhydrides are sulfur trioxide,  $\text{SO}_3$ , which is derived from sulfuric acid, and calcium oxide,  $\text{CaO}$ , derived from calcium hydroxide. Sulfur trioxide and other oxides formed by the removal of water from an acid are often called acid anhydrides, whereas those such as calcium oxide that are produced by a base upon the loss of water are designated basic anhydrides.

*Ca-bc.com/zip\_internacional/usedmach/education/*

A compound formed by abstraction of water, usually from an acid. Example: acetic anhydride, which is used in converting cellulose to cellulose acetate.

*dow.com/productsafety/overview/glossary.htm#termsF*

A chemical compound derived from an acid by elimination of a molecule of water. Thus, sulfur trioxide ( $\text{SO}_3$ ) is the anhydride of sulfuric acid ( $\text{H}_2\text{SO}_4$ ), carbon dioxide ( $\text{CO}_2$ ) is the anhydride of carbonic acid ( $\text{H}_2\text{CO}_3$ ), and phthalic acid [ $\text{C}_6\text{H}_4(\text{CO}_2\text{H})_2$ ] minus water gives phthalic anhydride [ $\text{C}_6\text{H}_4(\text{CO}_2)\text{O}$ ]. Not to be confused with anhydrous.

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

(1) An oxide which, on addition of water, produces an acid or a base. (2) A material formed from another by removal of water.

*pmfst.hr/online\_publikacije/SkriptaPOK.pdf*

**Anhidridi su derivati karboksilnih kiselina koji se hidrolizom cijepaju na dvije molekule karboksilne kiseline. Priređuju se reakcijom kondenzacije između dvije molekule karboksilne kiseline koje mogu biti istovjetne ili različite.**

*Whittington's Dictionary of Plastics, by James W. Carley*

(1) A compound from which water has been extracted. (2) An oxide of a metal (basic anhydride) or of a non-metal (acidic anhydride) that forms a base or an acid, respectively, when united with water. (3) An organic compound made (conceptually) by the union of two acid molecules with the elimination of a molecule of water. In practice, organic anhydrides are usually produced by other reactions.

### **Anhydrous**

*Chemmeddl.org*

Free of water. Often used to describe a solid having no water of crystallization or a solvent from which traces of water have been removed.

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

Without water, both free water and water of crystallisation.

*oldnc.3dn.ru/Docs/Harper.C.A.Plastics\_Materials\_and\_Proc-s.pdf*

Anhydrous compounds are those from which water is removed or those that do not have the presence of water.

*schools.look4.net.nz/science/chemistry/index/index\_html*

A compound with all water removed, especially water of hydration. For example, strongly heating copper (II) sulphate pentahydrate ( $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$ ) produces anhydrous copper (II) sulphate ( $\text{CuSO}_4$ ).

### **Anhydrous ammonia**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

Liquid ammonia, a colourless substance liquefied under pressure, boiling at  $-33,5^\circ\text{C}$  and freezing at  $-77,5^\circ\text{C}$ , used as a refrigerant.

### **Anidex, Anidex fibre**

*About.com*

A synthetic fiber having a long chain polymer, composed at least 50% by weight of one or more esters, formed from a monohydric alcohol and an acrylic acid.

*Ca-bc.com/zip\_internacional/usedmach/education/*

A manufactured fiber in which the fiber-forming substance is any long chain synthetic polymer composed of at least 50% by weight of one or more esters of a monohydric alcohol and acrylic acid, ( $\text{CH}_2=\text{CH}-\text{COOH}$ ) (FTC definition).

*Fibresource*

Basic Principles of Anidex Fiber Production - Anidex is wet spun as monofilament by a proprietary process developed by Rohm and Haas. Anidex Fiber Characteristics - Imparts permanent stretch and recovery properties to fabrics. Retains dimension and power in fabrics after repeated laundering and dry-cleaning. Improves fit and comfort in apparel fabrics.

Improves fit and appearance in home furnishing fabrics. Provides shape control Fabrics have hand and appearance of companion fibers, no "rubbery" feeling. Excellent resistance to gas fading, oxidation, sunlight, oils and chlorine bleach Some Major Anidex Fiber Uses -

Apparel: Athletic wear, blouses, career apparel, dresses; foundation garments, hosiery and halfhose, lingerie, underwear; jackets, linings, rainwear; shirts, slacks, sportswear, suits, sweaters, work clothes Home Furnishings: Slipcovers, upholstery Fabric: Laces General

Anidex Fiber Care Tips - Home launder or dry-clean fabrics according to recommendations for companion fibers. Chlorine bleach may be used in laundering. Tumble or drip dry, as desired. Recommended safe ironing temperature is  $320^\circ\text{C}$  & deg.

*fibres2fashion*

a term used to describe fibres made from a synthetic linear polymer that consists of at least 50% by mass of one or more esters of a monohydric alcohol and propenoic acid (acrylic acid).

### **Aniline, Phenylamine, Aminobenzene**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

$\text{C}_6\text{H}_5\text{NH}_2$ . A colourless, oily, highly toxic liquid that turns brown on exposure to air. Boils at  $184^\circ\text{C}$ , slightly soluble in water and soluble in alcohol, ether and benzene. It is important organic base for dyes and drugs and is used for various industrial purposes, as in manufacturing rubber and photographic chemicals and in petroleum refining.

*Answers.com*

A colorless, oily, poisonous benzene derivative,  $\text{C}_6\text{H}_5\text{NH}_2$ , used in the manufacture of rubber, dyes, resins, pharmaceuticals, and varnishes.

*Dry goods*

One of the very numerous products of the distillation of coal tar. The readiness with which aniline, in certain of its reactions, produced very brilliant colors was known to chemists since 1826. Up to the year 1858, however it possessed nothing beyond a scientific interest, and had

it not been for the untiring industry of Mr. W. H. Perkin, dyers would probably have gone on in the good old way of dyeing fabrics with the extracts of plants and tree-bark until the end of time. In 1858 Mr. Perkin obtained a patent for the production of a dye stuff derived from aniline which soon became well-known as mauve, or "Perkin's purple," as well as by various other names. The discovery of Mr. Perkin formed the turning point in the history of aniline, and was indeed the beginning of a great revolution in the arts and manufactures connected with the dyeing of textile fabrics. The manufacture of aniline dyes was first begun in France. It immediately spread to all industrial centres, and became one of the most eagerly investigated of all commercial undertakings. A rapid succession of patents were applied for and obtained; new processes and combinations were continually being projected, and a great variety of colors were tried, with more or less success, as commercial substances. The activity of scientific re-research kept pace with the energy of manufacturing enterprise, resulting in a rapid improvement of processes, decrease in the cost of manufacture, and a great increase in the beauty and tinctorial effect of the dyes produced. At the present time every color, and all tints and shades of colors, are produced from aniline, which in turn is derived primarily from coal-tar and, while the processes employed and the combinations formed are very numerous, the names under which the dye-stuffs are sold must be said to be endless. All shades and sorts of aniline dyes communicate a permanent color to wool and silk, but only produce on vegetable fibres - cotton, jute, linen, etc. - a fugitive, easily-washed-out stain. But in order to produce the best results with silk and wool, dyers need good soft water, so that every fibre will be made to absorb all the color possible, in order to make them indelible. With hard water this can not be accomplished, and in some places dyers have been obliged to sink artesian wells at a heavy outlay. About the time of the French-Austrian war, in 1859, a coal-tar dye was introduced into commerce which became known as aniline red, or magenta, from the battle fought on the day of its invention. Aniline colors are employed in the industrial arts for numerous other purposes besides their great use as dyeing materials. Violet ink, and other fancy colored inks, are prepared from them. They are used by paper manufacturers for tinting pulps, and for the superficial staining of finished paper. They are likewise used in the printing of wall papers, in the preparation of lithographic inks, and to some extent for water colors. They are largely employed as coloring materials in perfumery, fancy soaps and cosmetics, besides having many other minor applications. Concerning these dyes, Dr. Hofmann, an Englishman, to whom the industry is much indebted, wrote, in 1862, while it was yet in its infancy, "Instead of disbursing her annual millions for these substances, England will, beyond question, at no distant day become herself the greatest color-producing country in the world; nay, by the very strangest of revolutions, she may ere long send her coal derived blues to indigo-growing India; her distilled crimson to cochineal-producing Mexico, and her fossil substitutes for quercitron and safflower to China, Japan and other countries whence the articles are now derived." It is scarcely needful to say that these bold anticipations made thirty years ago have already been fully realized.

*Iultcs.org*

Colourless oily compound,  $C_6H_5NH_2$ , the base used in the formation of many rich dyes obtained from coal tar but more extensively from benzole; also the base for resins and varnishes.

*Leather.webindia.com*

A colorless oily liquid made from coal tar used in making dyes and resins in organic synthesis.; The transparent dye used to color leather all the way through. It conceals none of the natural characteristics or markings.

*litleathercare.net/glossary.asp*

The name of a dye used to colour leather, penetrating the hide throughout. Non toxic dyes are used. Aniline is not a type of leather but is often used to describe sensitive leathers. Aniline

dyed leathers will be the same colour throughout unless a pigment or other substance has been used to colour the top surface.

*Orgs.ttu.edu*

The name given to the particular transparent dye used to color dyed leather.

*Whittington's Dictionary of Plastics, by James W. Carley*

$C_5H_5NH_2$ . A colourless, oily liquid, made by the reduction of nitrobenzene with iron chips and acid catalysts. It is used in the production of aniline-formaldehyde resins and certain catalysts and antioxidants.

*Wikipedia*

Aniline, phenylamine or aminobenzene is an organic compound with the formula  $C_6H_7N$ . It is the simplest and one of the most important aromatic amines, being used as a precursor to more complex chemicals. Its main application is in the manufacture of polyurethane. Like most volatile amines, it possesses the somewhat unpleasant odour of rotten fish and also has a burning aromatic taste; it is a highly-acrid poison. It ignites readily, burning with a smoky flame. The great commercial value of aniline was due to the readiness with which it yields, directly or indirectly, dyestuffs. The discovery of mauve in 1856 by William Henry Perkin was the first of a series of dyestuffs that are now to be numbered by hundreds.

*Wise4living.com*

A transparent dye that is used to treat leathers. Other words that refer to Aniline are: Naked, Pure, Unprotected, Natural. This is a more expensive piece of leather because without the treatment, it will naturally have fewer blemishes, making it a higher quality piece. It has also been said to be one of the softest types of leather.

### **Aniline black**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

The black dye that is produced on certain textile fabrics when aniline or an aniline salt is oxidised on the fabric in the presence of certain metal salts.

*Answers.com*

A black dye produced on certain textiles, such as cotton, by oxidizing aniline or aniline hydrochloride.

*Complete technology book on textile, spinning, weaving, finishing and printing, by Niir Bord*

Aniline black is a dye which requires a special method of application, being of such an insoluble and chemically resistant nature that the only practicable method of using it is to actually produce it on the fibre by suitable chemical reaction. It is the most brilliant, dense, and permanent black which can be produced on cotton, and is dyed, chiefly on cotton yarn, in large amounts. It is little used on wool and silk. Aniline black is obtained by oxidation of aniline, a basic substance ( $C_6H_5.NH_2$ ) produced from the coal tar hydrocarbon benzene ( $C_6H_6$ ). A bath is prepared containing aniline oil, hydrochloric (or other) acid, and some suitable oxidising agent. The cotton is saturated with this liquor and then „aged“ (hung in warm, moist atmosphere) or otherwise subjected to oxidising conditions.

*resil.com/c.htm*

A dye developed on the fibre by oxidation of aniline. Bright black, very fast, used mainly on cotton. Acid fumes may turn it a rusty green, but good soaping restores original black colour. See also Aniline dyes.

*Specialchem4*

Aniline black has a strong tinting strength, a low scattering power, a very strong light absorption capability, and its fastness properties are quite good. It also produces matt effects (velvety appearance) in paint because of its high binder demand. Aniline black is probably the oldest synthetic organic pigment, it was discovered around 1860. It is mostly used in some

speciality coatings where very deep blacks are required. However, its chromium content limits its application where physiological properties have to be considered.

### **Aniline dye**

*Ca-bc.com/zip\_internacional/usedmach/education/*

Dyes derived chemically from aniline or other coal tar derivatives.

*Carpets & Rugs*

A synthetic dye made from coal tar. In the early 1900's it was banned in Persia because the dyes were not colorfast.

*Carpet glossary*

In general, the term refers to an organic dye: however, it means an oily, poisonous, liquid amine, (C<sub>6</sub>H<sub>5</sub>NH<sub>2</sub>), obtained chiefly by the reduction of nitrobenzene and used chiefly in making dyes.

*chezchazz textile*

Fabric and leather dyes made from coal tar.

*Dictionary of descriptive*

A class of synthetic, organic dyes originally obtained from aniline (coal tars), which were, in fact, the first synthetic dyes. Today the term is used with reference to any synthetic organic dyes and pigments, regardless of source, in contrast to animal or vegetable coloring materials, natural earth pigments, and synthetic inorganic pigments. Aniline dyes are classified according to their degree of brightness or their light fastness. Basic dyes are known for their extreme brightness, as well as for their lack of COLOR FASTNESS . Aniline dyes are used to impart color to paper, cloth, leather, etc. Also called "coal tar dyes." See also: ACID DYES ;BASIC DYES ;DIRECT DYES ;DYE ;LAKE .

*finishwiz.com/definitions.htm*

Synthetic transparent colors which dissolve in the solvent for which they are formulated (i.e., water, alcohol, or oil). Some dyes are reducible in multiple solvents.

*resil.com/c.htm*

Any dye derived chemically from aniline Any dye derived chemically from aniline, a coal tar product.

### **Aniline finish**

*The American Leather Chemist Association Dictionary*

A clear finish with little or no pigmentation.

### **Aniline-formaldehyde resin**

*Whittington's Dictionary of Plastics, by James W. Carley*

An aminoplast that is made by condensing formaldehyde and aniline in an acid solution. The resins are thermoplastic and are used in making molded and laminated insulating materials with high dielectric strength and good chemical resistance. See Amino resin.

### **Aniline leather, Aniline dyed leather, Aniline finish**

*Alexvale.com*

Full grain leather, which has been colored with aniline dye, a natural derivative, rather than pigments. This dye completely penetrates the hide with color, allowing the natural grain to show. This type of finish is often associated with the "nude look."

*All-about-leather.co.uk*

Aniline leather is the most natural looking leather with the unique surface characteristics of the hide remaining visible. Aniline leather is coloured only with dye and not with a surface

coating of polymer and pigment . A light surface coating may be applied to enhance its appearance and offer slight protection against spillages and soiling.

#### *Allaboutleather*

Leather which has been dyed but has not received a pigmented coating, a bit like staining wood rather than painting it.

#### *Ctleather.com*

leather that has been through-dyed by immersion in a dyebath and has not received any coating of pigment finish. Dye used to colour fine leathers is water based and no longer a toxic chemical.

#### *deichmann.com/DE/en/corp/service\_corporate.jsp*

Premium smooth leather that is dyed throughout. When it is dyed with transparent stains, the leather's natural grain is maintained. It is generally dyed in a barrel.

#### *Indianleatherportal*

Leather which retains its colour only from dyestuffs rather than from pigment, and as a consequence looks more natural.

#### *Irvingtanning*

Leather that is colored all the way through with a transparent dye. The effect is applied by immersing the leather in a dye bath. Because the finish is transparent and shows the natural markings of the leather, only the best quality hides can be used.

#### *Orgs.ttu.edu*

Leather that has been dyed through with aniline dyes. Pure aniline leathers represent approximately 5 percent of all upholstery leathers produced worldwide. Sometimes topped with a protein, resin, or lacquer protective coating; can also be waxed.

#### *Rodenleather c*

Pure Aniline is top grain leather that is dyed for color without any pigments applied. These hides will exhibit some natural characteristics such as healed scars, scratches, neck and belly wrinkles. Expect color variation from the swatch to the actual leather, due to the fact leather is a natural product and will absorb dye differently within the hide and from hide to hide. This leather will develop a rich patina over time and will fade with prolonged exposure to sunlight.

#### *Stuartsbagsglossary*

Leather that has been dyed by immersion in a dyebath and has not received any coating of pigment finish.

#### *Tanning Chemistry: The Science of Leather, by Anthony D. Covington*

Leather dyed with transparent colouring, traditionally dyes prepared with aniline as precursor. Important is the lack of opaque colouring on leather surface, which would obscure the natural grain pattern. Semi-aniline has some colour opacity, to hide minor blemishes.

#### *United fabrics*

Leather that has been dyed through with aniline dyes. Pure aniline leathers represent approximately 5% of all upholstery leathers produced worldwide. Sometimes topped with a protective coating; can also be waxed. Aniline leather will allow all natural characteristics of a hide to show through.

#### *Wikipedia*

Aniline leather is a type of leather in which high quality hides have been treated with aniline as a dye. This produces a delicate, soft, supple leather.

Typically, leather is coloured both for aesthetic reasons and to conceal blemishes. However, aniline leather is not coloured. Often the term naked leather is used. This allows the leather to breathe better, making the leather more comfortable in both hot and cold weather.

However, extra care is required when using furniture made from this leather. It is particularly susceptible to discolouration by sunlight and vulnerable to liquid spills.

### **Aniline point**

#### **Anilinska točka**

*Polymer science dictionary, by Mark S.M.Alger*

A measure of the aromaticity of a solvent. It is the lowest temperature at which equal volumes of the solvent and aniline are completely miscible.

*Polymer Technology Dictionary, by Tony Whelan*

An indicator of the aromatic content of an oil, which is determined by measuring the lowest temperature at which the oil is miscible, with an equal volume of aniline, measured in °C.

### **Aniline yellow**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

$C_6H_5N=NC_6H_4NH_2$ . Yellow to tan crystals that are slightly soluble in water and soluble in alcohol and ether. Melts at 126-128°C and boils above 360°C. Used in various yellow dyes.

### **Anilox roller**

#### **Anilox valjak**

*Polymer Technology Dictionary, by Tony Whelan*

An engraved stainless steel roller which holds ink in the recesses of the design (in cells) and acts as a metering device in flexographic printing.

### **Animal oil**

#### **Ulje životinjskog porijekla, Životinjsko ulje**

*struna\_knj\_14\_strelementi\_04(1381).pdf – Foxit Reader*

**Mazivo ulje sastavljeno od mješavine ugljikovodika dobiveno preradbom materijala životinjskoga podrijetla.**

### **Animal skin**

*Library*

refers to a design which suggests the skin of an animal Leopard, tiger, zebra and giraffe are popular motifs.

*Rotaltes*

refers to a design which suggests the skin of an animal. Leopard, tiger, zebra and giraffe are popular motifs.

### **Animalising**

*ebooksread.com/authors-eng/louis-harmuth/dictionary-of-textiles-hci/1-dictionary-of-textiles-hci.shtml*

Consists in treating cotton yarns with solutions of silk or other animal fiber in order to impart to the cotton certain general properties of animal fibers.

*HAND BOOK ON GLOSSARY OF TEXTILE TERMS, BUREAU OF INDIAN STANDARDS NEW DELHI 110 002, UDC 001.4/677 (021) ISBN 81-7061-009-5*

A chemical process designed to confer on man-made fibres an affinity for dyestuffs normally used on wool. The process is carried out during or after the manufacture of the fibres.

*Texmachinery*

A chemical treatment that enables fibres other than wool to take dyes used for animal fibres.

*The Methods of Textile Chemistry, by Frederic Dannert*

Preparing cotton by coating the yarn with a solution of albumin and then steaming in order to coagulate the coating. Other substances that can be used are tannic acid, gelatin, casein and wool dissolved in caustic soda. The object is to produce a yarn which may be dyed fast shades with the substantive, as well as with the basic dyes, in a single bath.

## **Anion**

*Ne-wea.org*

A negatively charged ion. This will normally try to combine or attach to a cation. Examples of anions are nitrate, nitrite, sulfate, phosphate, chloride, acetate, cyanide, carbonate, bicarbonate, and hydroxide.

*Scalefighter.com*

A negative ion; an atom or group of atoms that has gained one or more electrons.

*The-power-washer-advisor*

An atom or group of atoms that have a negative electric charge. An "anionic detergent surfactant" is attracted to soil that carries a positive electric charge. Anionic chemicals are mostly used by manufacturers to create foam.

## **Anion exchange chromatography**

*geneed.com/website/catalog/glossary\_search.php?id=235&search\_term=anion exchange chromatography &select=TRUE*

A chromatography method in which a resin with positively charged functional groups are bound to negatively charged ions (anions). When the solution to be separated is loaded onto the column, the negatively charged molecules displace the anions and bind to the resin.

*Novasep.com*

The ion exchange procedure used for the separation of anions. The tetra-alkyl-ammonium group is a typical strong anion exchange functional group.

## **Anionic**

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

Pertaining to any negatively charged atom, radical or molecule – or to any compound or mixture containing negatively charged groups.

## **Anionic detergent**

*Enviro-solution.com*

When dissolved in water, split into particles having positive and negative charges, with the heavy (fatty) part or working part of the molecule showing a negative (anionic) charge in solution. Most general purpose soapless detergents are anionic. Almost invariably soiled surfaces are negatively charged and when the anionic detergent attaches itself to the dirt particle, the dirt particle is forced away from the surface being cleaned because like charges repel and opposite charges attract. When builders such as phosphates were added to anionics this "bouncing off" of the dirt by electrical force was greatly increased. Anionics are most effective in neutral or alkaline cleaning solutions. The bulk of the detergents currently marketed, such as soaps, alkyl aryl sulfonates, alkyl sulfates, etc., are of the anionic class. Anionic detergents are not compatible with cationic detergents.

*nuancesol.com/glossary\_terms.html*

A material which carries a negative charge. Most soaps are anionic, as they combine fatty acids and an alkali. Oleate Soap, Amine Soap, Sodium Soap and combinations of the three are frequently used in cleaners.

*Textile preparation and dyeing, By Asim Kumar Roy Choudhury*

Anionic detergents are most powerful and popular cleaning agents. Chemically they belong to sulphates of fatty alcohols, olefins, oils (e.g. sulphated castor oil or Turkey red oil), monoglycerides, amide condensates, alkyl aryl polyether and sulphonates of alkyl amides, ethers, olefins, etc. A very popular ingredient in detergent manufacture is dodecylbenzene sulphonate, commonly known as acid slurry. It is neutralised with sodium carbonate (product



known as STPP) or caustic soda to prepare soluble sodium salt.

#### **Anionic dispersant**

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

Polymeric materials used to generate steric hindrance at the surface of nano particles to prevent aggregation or agglomeration. Polyacrylic acid is a common dispersant used to disperse  $\text{TiO}_2$  and  $\text{BaTiO}_2$ . The amount used depends on the molecular weight of the polymer, pH and the volume fraction of the solid. (See – Aggregate and Agglomerate.)

#### **Anionic exchange**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

A process in which anions in solution exchange with anions in an insoluble matrix or resin.

*Environmental Engineering Dictionary, edited by C. C. Lee*

A reversible exchange of negative ions between functional groups of ion exchange medium and the solution in which the solid is immersed. Used as a wastewater treatment process for removal of anions, e.g. carbonate.

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

A type of ionic exchange in which the negative ions in a solution are exchanged with the negative ions in a solid, the superficial physical structure of the solid being unaffected. This process is preceded by anionic adsorption.

#### **Anionic polymer**

##### **Anionski polimer**

*Environmental Engineering Dictionary, edited by C. C. Lee*

An organic compound characterised by a large molecule weight and a net negative charge, formed by the union of two or more polymeric compounds. Certain polymers act as coagulants or coagulant aids. Added to wastewater they enhance settlement of small suspended particles. The large molecules attract suspended matter to form a large floc.

#### **Anionic polymerisation**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

(1) The anionic polymerisation of negatively charged species with a monomer that contains a double bond. (2) A type of polymerisation catalysed by Lewis bases.

[answers.com/topic/anionic-polymerization](https://answers.com/topic/anionic-polymerization)

A type of polymerization in which Lewis bases, such as alkali metals and metallic alkyls, act as catalysts.

*E. VIDOVIĆ: Glosar pojmova vezanih uz kinetiku, termodinamiku i mehanizme polimerizacije, Kem. Ind. 61 (4) 215–236 (2012)*

**Ionska polimerizacija kod koje su anioni aktivni centri. Anioni mogu biti slobodni, spareni ili u nakupinama.**

[findarticles.com/p/articles/mi\\_m2DMT/is\\_10\\_80/ai\\_n31586509/?tag=content;coll](https://findarticles.com/p/articles/mi_m2DMT/is_10_80/ai_n31586509/?tag=content;coll)

Ionic polymerization in which the active centers are anions. The anions may be free, paired, or aggregated.

*"Glossary of Basic Terms in Polymer Science", May 13, 1991.*

An ionic polymerization in which the kinetic-chain carriers are anions. (IUPAC)

*Plastics Materials and Processes, by Charles A. Harper, Google books*

Addition polymerisation process that is initiated by anions. A wide variety of anions can be used, but the use of organic alkali metal salts has the greatest commercial importance.

Anionic polymerisation is propagated by carbon atom intermediates, which contain an unshared pair of electrons and are negatively charged. The conventional method of initiation

of ionic change involves the addition of a negative ion to the monomer, with the opening of a bond or ring and growth at one end. In an inert medium, there is no termination step. The chains will continue to grow until the monomer supply is exhausted. The ionic chain end is stable, and the growth of the chains can be resumed by the addition of more monomer. For this reason, these materials have been termed living polymers.

*Polymer science dictionary, by Mark S.M. Alger*

Ionic chain polymerisation in which the active centre is an anion, usually a carbanion. Like cationic polymerisation the counteranion ( $Y^+$ ) may remain in close association with the active centre, as tight or solvent-separated ion pair, or the ions may be free ions, depending on the solvent polarity. Generally vinyl monomers, carrying electron-withdrawing substituents (X) are prone to anionic polymerisation. In addition oxirane and thiirane ring compounds, such as ethylene or propylene oxides and sulphides, other oxygen ring compounds, and nitrogen ring compounds, such as lactams, will also undergo anionic polymerisation.

### **Anionic softeners**

*Chemistry & Technology of Fabric Preparation & Finishing, by Dr. Charles Tomasio*

Anionic softeners and/or surfactant molecules have a negative charge on the molecule which come from either a carboxylate group ( $-COO^-$ ), a sulfate group ( $-OSO_3^-$ ) or a phosphate group ( $-PO_4^-$ ). Sulfates and sulfonates make up the bulk of the anionic softeners. Some phosphates, and to a lesser extent the carboxylates, are used as softeners. Anionic softeners impart pliability and flexibility without making the fabric feel silky. They are used extensively on fabrics to be mechanically finished, e.g napped, sheared or Sanforized. A good napping lubricant, for example, provides lubrication between the fabric and the napping wires yet at the same time provides a certain amount of cohesiveness between fibers. If the fibers are too slippery, the napping wires will overly damage the yarn. Sulfonated oils (eg Turkey Red Oil) impart a soft raggy hand, sulfonated tallow a full waxy hand and sulfonated fatty esters a smooth waxy hand. Most anionic softeners show good stability towards heat and some are resistant to yellowing. Anionic softeners do not interfere with finishes to be foamed, in fact like defoamers and are deleterious for foam finishing. Anionic softeners have good rewetting properties and are preferred for those fabrics that must adsorb water such as bath towels. The degree of softness with anionics is inferior when compared with cationics and some nonionics. Generally speaking, more anionic product must be used and even then, the cationics and some nonionics impart a softer, fluffier feel to the fabrics. Anionics have limited durability to laundering and dry-cleaning. Anionics will not exhaust from a bath, they must be physically deposited on the fabric. Anionics tend to be sensitive to water hardness and to electrolytes in finish baths. Anionics are incompatible in some finish baths containing cationically stabilized emulsions.

*Handbook of fiber finish technology, by Philip E. Slade*

Anionic softeners, used primarily on cotton and rayon fabrics, provide more lubricating properties than actual softening. They give fabric a smooth, slick surface and can be used to assist napping, shearing, sanforizing and calendaring. They also provide a finish with good absorbency and can be effective as towel softeners. Generally, anionic softeners have little affinity for textile substrates and many tend to develop odours during storage. Anionic softener bases are sulfated glycerides with stearic acid soap as a dispersing agent. Another possible anionic softener is sulphated tallow alcohol, which has the advantage of low odour formation.

*scribd.com/doc/20313995/Methods-to-Impart-Softness*

Anionic softeners are negatively charged. Perhaps one of the first anionic softeners was soap, prepared by hydrolising animal fat with lye. Later sulfated oils, tallows and fatty alcohols were developed. These sulfated anionic softeners were less sensitive to hard water and acids than regular soap. They make the fabric pliable and flexible without making it slick. Furthermore, they exhibit good stability to heat and alkaline conditions, they have good rewetting properties, and they have excellent fabric-to-metal lubrication. Although useful, anionic softeners have limitations. They do not offer softness desired on most fabrics. Except for polyethylene, they have limited durability to laundering and dry-cleaning. A purely anionic softener will not exhaust from a dilute bath, due to the repulsion of partially anionic cotton, thus it has to be applied by other methods. Anionic softeners are more likely to foam, which is detrimental in some instances. A bath consisting of a cationic emulsion and an anionic softener is not stable, unless special stabilisers are used.

*scribd.com/doc/18681846/Textile-Reference-Book-for-Finishing*

Sulphoricinates, anionic surfactants produced by the condensation of fatty acids. They are good lubricating softening agents and give full hand to the fabrics treated with them. They are unstable in hard water and acid environment. Additionally, they are prone of causing yellowing of the fabric at elevated temperatures.

### **Anionic surfactant**

#### *Carpet glossary*

A surface active agent usually derived from reacting aliphatic hydrocarbons and alkalis to form a salt, and in which detergent and other properties depend in part on the negatively charged ion of the molecule. Anionic surfactants are sensitive to water hardness, and are particularly effective in emulsifying oily soils and in suspending particulates. Anionic surfactants are used widely in high sudsing detergents.

*Chemistry & Technology of Fabric Preparation & Finishing, by Dr. Charles Tomasino*

Many of the structures that function as anionic softeners are also useful as detergents and wetting agents. Anionic surfactants have a negative charge on the molecule. The hydrophilic moiety of anionics are based on carboxylic, sulfuric, sulfonic and phosphoric acids. The surfactants are usually neutral molecules, the acids having been converted to their corresponding alkali salt. Solubility is usually related to the length of the alkyl chain. HLB becomes a function of choosing the proper fatty alkyl group. Listed below are the structure of some of the more widely used anionics.

*Environmental Engineering Dictionary, edited by C. C. Lee*

An anionic type of surface-active substance that has been widely used in cleaning products. The hydrophilic group of these surfactants carries a negative charge in washing solution.

#### *Naftni rječnik – Perić*

**Organska molekula s negativno nabijenom grupom koja je topljiva u vodi, za razliku od kationske (cationic), neionske (nonionic) ili amfoterne (amphoteric) površinski aktivne tvari (surfaktanta).**

*p2pays.org/ref/13/12194.pdf*

Anionic surfactants commonly used in textile processing are: (1) sulphates (e.g. alcohol ethoxysulphates, alkanolamides sulphates, sulphated vegetable oils), (2) sulphonates (e.g. alkylbenzen sulphonates, sulphonated vegetable oils, naphthalene sulphonates, ligninsulphonates) and (3) alkyl ether phosphate. The linear, more biodegradable compounds are the most commonly used (e.g. alkylbenzene sulphonates, fatty alkyl sulphates, etc.). Examples of recalcitrant anionic surfactants are the lignin sulphonates and the condensation products of naphthalene sulphonic acid with formaldehyde that are widely used as dispersants for vat and disperse dyes. Anionic surfactants have several advantages: they are good oil emulsifiers and dye dispersants, they are excellent wetting agents and they are not expensive. In turn, they generate high levels of foam and sulphate surfactants are sensitive to calcium and magnesium.

[pmfst.hr/online\\_publikacije/SkriptaPOK.pdf](http://pmfst.hr/online_publikacije/SkriptaPOK.pdf)

Ovi tenzidi su lužnati i nisu kompatibilni s kiselim tvarima ili otopinama. Često su osjetljivi na tvrdoću vode i divalentni ioni metala ih deaktiviraju, posebno  $\text{Ca}^{2+}$  i  $\text{Mg}^{2+}$ , pa je s njima nužno koristiti destiliranu vodu.

[plrb.org/education/PTR/Cleaning\\_Structure/CS0270.htm](http://plrb.org/education/PTR/Cleaning_Structure/CS0270.htm)

A surface-active agent usually derived from reacting aliphatic hydrocarbons and alkalis to form a salt and in which detergency and other properties depend in part on the negatively charged ion of the molecule. The negative charge, which the hydrophilic portion of the anionic surfactant carries, accounts for its name. Anionic surfactants are sensitive to water hardness and are particularly effective in emulsifying oily soils and in suspending particles. *Scienceinthebox*

This is the most widely used type of surfactant for laundering, dishwashing liquids and shampoos because of its excellent cleaning properties and high . The surfactant is particularly good at keeping the dirt away from fabrics, and removing residues of fabric softener from fabrics. Anionic surfactants are particularly effective at oily soil cleaning and oil/clay soil suspension. Still, they can react in the wash water with the positively charged water hardness ions (calcium and magnesium) , which can lead to partial deactivation. The more calcium and magnesium molecules in the water, the more the anionic surfactant system suffers from deactivation. To prevent this, the anionic surfactants need help from other ingredients such as builders (Ca/Mg sequestrants) and more detergent should be dosed in hard water. The most commonly used anionic surfactants are alkyl sulphates, alkyl ethoxylate sulphates and soaps.

#### **Anisometric**

*Ian J.McColm: Dictionary of Ceramic Science and Engineering, III Edition*

Describes a crystal or srtefact having unequal measurements.

#### **Anisometry**

##### **Anizometrija**

*Polymer science dictionary, by Mark S.M.Alger*

The difference in the magnitude of the dimensions of a particle or body in different directions. Thus a sphere has a minimum anisometry – it is isometric. A plate-like particle is more anisometric, and a long thin cylinder (or fibre) is even more so. Frequently used in the characterisation of reinforcing fillers, especially carbon black, where the high structure blacks have high anisometry. Generally, the higher the anisometry the higher the modulus enhancement. A quantitative measure of anisometry is given by the ratio of the major to minor axis length of the ellipse constructed such that the particle or particle aggregate (or planar projection of it) has the same two moments of inertia around the two axes. For long, thin particles, especially for fibres and needle-like particles, the length to diameter ratio, i.e. the aspect ratio, is the measure of anisometry. Polymer molecules, when extended, have extreme anisometry, being typically about 1 nm in diameter and  $10^3$  nm in length.

#### **Anisotropic**

##### **Anizotropan**

[Ca-bc.com/zip\\_internacional/usedmach/education/](http://Ca-bc.com/zip_internacional/usedmach/education/)

Not having the same physical properties in every direction. In the plane of a fabric, it is related to a non-random distribution of fibers.

*Ian J.McColm: Dictionary of Ceramic Science and Engineering, III Edition*

Physical properties that depend on crystallographic direction in which they are measured.

Even materials with a cubic crystal structure can have some anisotropic properties.

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Tijelo koje u različitim smjerovima ima različita fizička svojstva. Anizotropan je kristal onaj u**

**kojemu električna, magnetska, optička, mehanička i druga svojstva ovise o smjeru uslijed razlika u naravi kemijskih**

*Instron*

A material whose properties vary in different directions. Fibre-reinforced materials such as Composites frequently display anisotropic properties. Anisotropy can also be observed in other materials such as metals where processing or forming operations such as rolling or deep drawing have been performed

*Naftni rječnik – Perić*

Koji pokazuje različita fizička svojstva (koji posjeduje promjenljiva fizička svojstva) u raznim smjerovima u kojima su mjerena, na primjer, toplinska ili električna vodljivost, kompresibilnost, elastičnost, permeabilnost i druga svojstva. Svi kristali su anizotropni u odnosu na neka svojstva, na primjer, širenje zvučnih valova. Termin anizotropan se, međutim, ako nije drugačije navedeno, odnosi na optička svojstva i u tom smislu su svi kristali (osim kristala kubičnog sustava) anizotropni. Sinonim: aeolotropic; v. isotropic.

*oldnc.3dn.ru/Docs/Harper.C.A.Plastics\_Materials\_and\_Proc-s.pdf*

An anisotropic material is one in which the properties are different in different directions along the laminate plane. A unidirectional composite is an example of an anisotropic material. It has different properties in the directions parallel to the fibers compared to the direction perpendicular to the fibers. Wood is another example of an anisotropic material. It has properties that are different in the direction of the grain and perpendicular to the grain.

*PCMag*

Refers to properties that differ based on the direction that is measured. For example, an anisotropic antenna is a directional antenna; the power level is not the same in all directions.

*plc.cwru.edu/tutorial/enhanced/files/glossary/glossary.htm*

Having properties which vary depending on the direction of measurement. In liquid crystals, this is due to the alignment and the shape of the molecules

*Wikipedia*

is the property of being directionally dependent, as opposed to isotropy, which means homogeneity in all directions. It can be defined as a difference in a physical property (absorbance, refractive index, density, etc.) for some material when measured along different axes. An example is the light coming through a polarising lens.

### **Anisotropic behaviour**

#### **Anizotropno ponašanje**

*Polymer Technology Dictionary, by Tony Whelan*

Having different properties in different directions. The properties of many polymeric products differ if measured in different directions, e.g. tensile strength is greater in the direction of orientation. Impact strength is also affected by this frozen-in orientation. In an Izod impact test, where the sample has been injection moulded with the gate at one end of the sample, the molecules will be roughly aligned with the long axis of the sample. Thus to snap the sample, in a standard Izod test, it would require a fracture across the elongated molecules, thus giving a higher impact strength than would be recorded with unoriented samples. On the other hand, if impact strength is measured by dropping a weight onto a flat plate, lower impact strength will be recorded with highly oriented mouldings. This is because fracture can occur more easily parallel to the direction of orientation, since it largely requires fracture between, rather than across, molecules.

### **Anisotropic material**

#### **Anizotropni materijal**

*građevinarstvo \_ Struna \_ Hrvatsko strukovno nazivlje.html*

**Materijal kojemu su fizičko-mehanička svojstva u različitim smjerovima različita. Drvo je anizotropni materijal jer ima različita svojstva u smjeru vlakana od svojstava u smjeru okomitome na vlakna.**

### **Anisotropy**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

The fact of being dependent on direction, especially in a crystalline lattice, of any mechanical, electrooptic, or magnetic property, such as elasticity, conductivity, or permeability.

*ASM materials engineering dictionary, by Joseph R. Davis*

The characteristic of exhibiting different values of a property in different direction with respect to a fixed reference system in the material.

*/composite.about.com/library/glossary/a/bldef-a360.htm*

The tendency of a material to react differently to stresses applied in different directions.

Dependence of properties on orientation of axes.

*Ndt-ed.org*

The characteristic of a substance for which a physical property, such as the elastic properties, varies with the direction along which the measurement is made.

*netcomposites.com/glossary*

The tendency of a material to exhibit different along the directions parallel to the length or width into the lamination planes; or parallel to the thickness into the planes perpendicular to the lamination.

*Polymer science dictionary, by Mark. s.m. Alger, Google books*

The dependence of the properties of a material on the direction in which they are being observed. In polymers, anisotropy results when the polymer molecules are oriented or when anisotropically shaped or oriented fillers (e.g. fibres) are present. Mechanical and optical anisotropy are most important. The material properties are most conveniently referred to a coordinate system which coincides with any of the axes of symmetry (the principal axes) that may be present.

### **Ankle**

*Britannica*

in humans, hinge-type, freely moving synovial joint between the foot and leg. The ankle contains seven tarsal bones that articulate (connect) with each other, with the metatarsal bones of the foot, and with the bones of the lower leg. The articulation of one of the tarsal bones, the ankle bone (talus, or astragalus), with the fibula and tibia of the lower leg forms the actual ankle joint,

*resil.com/c.htm*

In anatomy, the joint between the foot and the lower leg.

### **Ankle boots**

*Shoeglossary*

Boots with shafts that end at or around the height of the ankle.

### **Ankle girth**

*domex.nps.edu/corp/files/govdocs1/151/151809.pdf*

The girth of the ankle measured around the leg at the level of the center of the ankle bone.

*resil.com/c.htm*

In body measurements, the circumference of the leg over the greatest prominence of the ankle.

### *Topendsports*

This girth measurement is usually taken on the right side of the body, at the level of the narrowest point of the ankle. The minimal girth point is not always obvious, and the tape may need to be moved up and down to find the point of least circumference. When recording, you need to make sure the tape is not too tight or too loose, is lying flat on the skin, and is horizontal. It may help to have the subject stand on a box to make the measurement easier.

### **Ankle height**

*domex.nps.edu/corp/files/govdocs1/151/151809.pdf*

The vertical distance measured from the ankle to the soles of feet.

### **Ankle strap**

*Mylovelybigfeetblog*

Shoe with a strap that fastens around the ankle.

*shoebacca.com/resources/definitions/heel-seat.html*

An ankle strap consists of a single piece or multiple pieces of leather, plastic or other material attached to the back of a shoe, extending around the wearer's ankle. The strap fastens around the ankle through the use of a buckle, hook and loop material or similar methods. Ankle straps are typically found on girls' and women's shoes, both on dressy and casual wear. The ankle strap is usually necessary, as the strap helps stabilize the shoe on the wearer's feet. In some cases, the ankle strap is used solely for decoration. For example, an ankle strap on a ballet flat isn't necessary, but could be present for the "look."

*shoes.about.com/od/glossaryofshoestyles/g/ankle\_straps.htm*

An ankle strap shoe has a single strap or multiple straps that wraps around the ankle.

Whether the shoes in question are sandals or pumps, or whether the straps are buckled or elasticized, one or more straps is all that is needed to make a shoe an ankle strap.

When a shoe features ribbons, string, or other material that can be wrapped around the ankle multiple times and tied, it is often called an ankle "wrap" shoe.

*teamlouish.com/snow.terms.html*

a strap on the boot and/or binding that wraps around the ankle to provide heel retention.

### **Anklet**

*Apparelsearch*

a short sock reaching slightly above the ankle.

*Beadage.net*

A chain or bracelet worn as decoration around the ankle. Because anklets can take a beating, it's best to use a strong threading material. When choosing a clasp, avoid barrel clasps as they tend to come undone; lobster claw clasps or spring ring clasps are more secure.

*HAND BOOK ON GLOSSARY OF TEXTILE TERMS, BUREAU OF INDIAN STANDARDS  
NEW DELHI 110 002, UDC 001.4/677 (021) ISBN 81-7061-009-5*

(a) A knitted footwear where the length of the leg portion just covers the ankle. It has either a turn-over top, elastic top or rib top. Also known as 'Ankle Socks' and 'Tennis Socks'.

(b) A tubular band knitted on round machines with elastic threads laid-in; used by sportsmen for support and protection to the ankle.

*Hosieryassociation.com*

Hosiery with a top designed to cover the ankle bone and extending less than one-third of the way up the largest part of the calf.

*prewettmills.com/terms.asp*

A sock with a turned down cuff covering the ankle bone. The anklet was introduced for women in 1920, causing a sensation when initially worn at a tennis match in 1931.

## **Anneal**

*Acculam.com*

to prevent the formation of or remove stresses in plastics by cooling from a suitable temperature.

*Computer desktop, answers.com*

To take the brittleness out of metal, plastic or certain carbon composites. Performed in the preparation of new products or in their restoration, annealing is accomplished via a heat treating process.

*Environmental Engineering Dictionary, edited by C. C. Lee*

To treat metal, alloy, plastics or glass by a process of heating and slow cooling in order to remove internal stresses and to make the material less brittle.

*iec.net/Browse05/GLS0.html*

To soften & relieve strains in any solid material, such as metal or glass, by heating to just below its melting point & then slowly cooling it. Annealing generally lowers the tensile strength of the material, while improving its flex life & flexibility.

*wiktionary.org/wiki/anneal*

To subject to great heat, and then cool slowly for the purpose of rendering less brittle; to temper; to toughen.

## **Annealing, Hardening, Tempering**

**Kaljenje, Temperiranje, Žarenje; Popuštanje, Toplinski oporavak**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

The sustained heating of a material, such as metal or glass, at a known high temperature, followed by the gradual cooling of the material. A process is carried out in order to reduce hardness or brittleness, to eliminate various stresses or weaknesses, or to produce other qualities.

*An Introduction to materials engineering and science by Brian S. Mitchell*

Deformation in polycrystalline materials can lead to not only strain hardening and an increase in dislocation density, as described above, but also a change in grain shape. In some instances, all of these processes can be reversed through heat treatment in what is generically called annealing. Annealing refers to a heat treatment in which a material is exposed to an elevated temperature for an extended period of time and then slowly cooled. The annealing process usually consists of three stages: (1) heating to the desired temperature; (2) holding or “soaking” at that temperature; and (3) cooling at a slow rate, usually to room temperature. Time is an important parameter in each step. During annealing, several processes can occur that lead to what is termed “recovery,” which is a restoration of properties and structures that are more similar to those found in the pre-cold-worked states. We concentrate here on those recovery processes during annealing that are specific to metals and alloys, and we return in later sections to describe annealing in other materials, particularly inorganic glasses.

*Automateddynamics.com*

In plastics, heating to a temperature at which the molecules have significant mobility, permitting them to reorient to a configuration having less residual stress.

*ceere.org/beep/docs/FY2001/NFRC Glossary.pdf*

Heating above the critical or recrystallization temperature, then controlled cooling of metal, glass, or other materials to eliminate the effects of cold-working, relieve internal stresses, or improve strength, ductility, or other properties.

*composite.about.com/library/glossary/a/bldef-a362.htm*

(1) The process of relieving stresses in molded plastic articles by heating below deformation temperature, maintaining this temperature for a predetermined length of time, followed by



controlled cooling. (2) A thermal treatment to change the properties or grain structure of a metallic material. (3) A controlled cooling process for glass to reduce thermal residue stress. [empirewest.com/info\\_resources/techacademy\\_glossary.htm](http://empirewest.com/info_resources/techacademy_glossary.htm)

A process of holding a material at a temperature near, but below, its melting point. The objective of annealing is to permit stress relaxation without distortion of shape. It is often used on injection molded articles to relieve stresses set up by flow in the mold.

*Fluoroplastics: Melt Processible Fluoropolymers : The Definitive Users Guide, by Sina Ebnesajjad*

A process in which a material, such as plastic, metal, or glass, is heated, then cooled slowly. In plastics and metals, it is used to reduce stresses formed during fabrication. The plastic is heated to a temperature at which the molecules have enough mobility to allow them to reorient to a configuration with less residual stress. Semi-crystalline polymers are heated to a temperature at which retarded crystallisation or recrystallisation can occur.

*Glosar naziva vezanih uz toplinska i termomehanička svojstva polimera, prijevod J. Macan, 2015*

Toplinska obrada čvrstog polimernog materijala pri stalnoj ili promjenjivoj temperaturi da bi se postigle željene promjene u njegovoj fizikalnoj strukturi i svojstvima, bez potpunog taljenja ili otapanja.

Napomena 1: Temperiranje kristalnog polimera obično se provodi držanjem polimera na temperaturama blizu, ali nešto ispod njegovog tališta. Napomena 2: U nekim slučajevima rezultati usporedivi s temperiranjem mogu se postići izlaganjem kristalnog polimera lošem otapalu ili njegovim parama. Napomena 3: U kristalnom polimeru temperiranje vodi do preuredbe (reorganizacije), uključujući moguće povećanje uređenosti u postojećim polimernim kristalima, povećanje stupnja kristalnosti i perioda pregiba, te prijelaz u stabilnije kristalne polimorfe. Napomena 4: U amorfnom polimeru temperiranje na temperaturama ispod staklišta ( $T_g$ ) vodi do tzv. fizikalnog starenja ili podstaklišnog temperiranja, koje je povezano s promjenama entalpije, entropije i obujma.

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Toplinski postupak tijekom kojega se mijenjaju fizička svojstva materijala.**

[huntsman.com/pu/Media/PU\\_Brochures\\_cwp\\_glossary.pdf](http://huntsman.com/pu/Media/PU_Brochures_cwp_glossary.pdf)

The process by which stresses are relieved in a structure through the addition of heat. The added heat causes the material to have more micro-mobility and allows the rearrangement on a segmental basis to a lower energy structure, which is usually a more ordered array. For a crystal, this means a reduction in crystal defects.

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

A generic term used to denote a heat treatment designed to alter the microstructure and hence the properties of a material (see – Anneal).

*Polymer science dictionary, by Mark. s.m. Alger, Google books*

The improvement of crystallinity by heating to temperatures below the melting point. This may result from the growth of the crystalline regions e.g. lamellar thickening, the increase in crystal perfection by reduction of defects, or from a change to a more stable crystal structure in polymorphic polymers. Usually annealing has a beneficial effect on properties – increasing modulus and impact strength and reducing any tendency to crazing and cracking on excessive stressing. Amorphous polymers are also said to be annealed when heated to remove internal frozen-in stresses.

*Processing and Finishing of Polymeric Materials, 2 Volume Set, by Wiley*

The annealing of plastics can be defined as a secondary process, wherein the plastic is brought to a certain temperatures, kept there for a time, and then cooled to room temperature. The primary reasons for annealing include the reduction or removal of residual stresses or strains, dimensional stabilisation, reduction or elimination of defects, and improvement of physical properties. In the plastics industry, annealing has been applied primarily to thermoplastic polymers, block copolymers and amorphous or semi-crystalline polymer blends. Although the main effect of annealing is to increase the density of the plastic, work indicates that other

changes occur as well. The annealing of semi-crystalline polymers may change the crystal structure, the degree of crystallinity, the perfection of the crystals and the orientation of both the crystalline and amorphous materials. The annealing of polymer blends and block copolymers may result in enhanced phase and microphase separation, and may also change the surface of the materials, making them more or less susceptible to stress crazing and stress cracking. The same problems may occur in amorphous and crystalline plastics. In most cases, the induced stresses and orientation may be insignificant, and no annealing is required if proper processing conditions have been used during fabrication. However, annealing becomes necessary when the moulded parts are excessively stressed, when maximum dimensional stability and heat resistance are required, or when certain properties must be enhanced. Improper annealing may also cause deterioration in performance.

[telfordsmith.com.au/glossary.asp?letter=F&page=5](http://telfordsmith.com.au/glossary.asp?letter=F&page=5)

A process of holding a material at a temperature near, but below, its melting point, the objective being to permit stress relaxation without distortion of shape. It is often used on moulded articles to relieve stresses set up by flow into the mould.

### **Annihilation**

#### **Anihilacija, Poništavanje, Poništenje**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Događaj u kojemu se čestica i antičestica ponište uz istodoban nastanak nekih drugih čestica u skladu sa zakonima očuvanja.**

### **Annihilation operator**

#### **Operator poništenja**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Matematički postupak koji u danome modelu kvantnoga stanja broj čestica smanjuje za jedan.**

### **Annular flow, Casing flow**

#### **Prstenasto strujanje**

*Naftni rječnik – Perić*

(1) Tip (režim) višefaznog strujanja fluida u cijevima u kojem lakši fluid struji u središnjem dijelu cijevi, a teži fluid na stijenci cijevi u obliku tankog filma. Lakši fluid može biti maglica ili emulzija. Prstenasto strujanje se javlja pri visokim brzinama strujanja lakšeg fluida. S porastom brzine strujanja film fluida može nestati i prstenasto strujanje prelazi u magličasto (v. mist flow) ili emulzijsko (emulsion flow). U slučaju kada je površina razdjela fluida nepravilna, prstenasto strujanje se može opisati kao valovito prstenasto strujanje (wavy annular flow). (2) strujanje u prstenastom prostoru. Strujanje (proizvodnja) slojnih fluida kroz prstenasti prostor između zaštitne kolone (casing) i kolone uzlaznih cijevi (tubing). Sinonim: casing flow.

### **Annular gear, Annular wheel, Annulus gear, Ring gear**

#### **Prstenasti zupčanik**

*struna\_knj\_14\_strelementi\_04(1381).pdf – Foxit Reader*

**Vanjski zupčanik planetnoga zupčanoga prijenosnika. Prstenasti zupčanik u obliku je prstena s unutarnjim ozubljenjem.**

### **Annular snap-fit joint**

#### **Prstenasti uskočni spoj**

*struna\_knj\_14\_strelementi\_04(1381).pdf – Foxit Reader*

**Uskočni spoj čiji barem jedan dio mora biti prstenast. Prstenasti uskočni spojevi svoju primjenu najčešće nalaze u spajanju rotacijskosimetričnih izradaka poput cijevi te različitih**

**poklopaca s pripadnim spremnicima. Prstenasti uskočni spojevi mogu biti cilindrični ili kuglasti.**

### **Annular spring, Ring-type spring**

#### **Prstenasta opruga**

*struna\_knj\_14\_strelementi\_04(1381).pdf – Foxit Reader*

**Opruga u obliku niza prstenova s naizmjeničnim unutarnjim i vanjskim međusobno naliježućim dvostrukim stožastim površinama. Prigušni rad prstenastih opruga razmjerno je velik, a progib malen.**

**Annular wheel**

*vidi*

**Annular gear**

### **Annulus**

#### **Kružni vijenac, Prsten, Prstenasti disk**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Disk iz kojega je izrezan manji disk oko istoga središta.**

**Annulus gear**

*vidi*

**Annular gear**

### **Annure**

*Beloved linens*

I. Drapery fabric with designs woven on a rep foundation, or a figure weave. Plain or mixed colors usually of cotton. Uses: couch covers, portieres. Weave —Jacquard. Width, 50". 2.

Silk fabric, closely woven with small pebbly pattern which suggests chain armor.

*Textilbol*

A raised satin motif on a plain rib construction

### **Anode**

#### **Anoda**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Elektroda koja ima veći električni potencijal. U elektrolitu je anoda pozitivno nabijena elektroda na kojoj se neutraliziraju anioni. U vakuumskoj elektroničkoj cijevi ili cijevi s razrijeđenim plinom anoda je pozitivna elektroda koja prikuplja elektron**

### **Anomalous dispersion, Anomalous scattering**

#### **Nepravilni rasap, Nepravilno raspršenje**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Raspršenje elektromagnetskoga zračenja na elektronu koji se nalazi u zadanome kvantnom stanju u atomu u slučaju kada je frekvencija upadnoga elektromagnetskog zračenja bliska frekvenciji titranja elektrona. Atomski faktor anomalnog raspršenja ima realnu i imaginarnu sastavnicu.**

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

The existence of a large discontinuity in the dispersion curve of a material, because at longer wavelengths the material has higher values of refractive index.

### **Anomalous flow**

#### **Nepravilno tečenje**

*Glossary of Paint and Coatings Terminology, M. Pavlič, Ljubljana 2002.*

Type of flow exhibited by a material in which, at a constant temperature, the ration of the shear stress to the velocity gradient varies either with time or with rate of shear. For example, with so called thixotropic materials, stirring or other such mechanical disturbance immediately before test will reduce the flow time below that for an unstirred sample. With such materials, uncertain and variable values for flow time are obtained in all flow cups.

### **Anomaly**

#### **Anomalija, Nepravilnost**

### **Anorak**

#### *Apparelsearch*

An anorak or parka is a type of heavy jacket with a hood, generally lined with fur or fun fur, so as to protect the face from a combination of freezing temperatures and wind.

#### *Ectextile.com*

A warm and windproof hooded, parka that extends to just below the buttocks. Used in raingear or winter wear. The unique feature of an anorak is a zipper that extends only half to three-quarters of the way down the front of the jacket. To put it on you must pull the anorak over your head like a T-shirt. Anoraks generally have a drawstring waist and can also have a drawstring hem, both designed to trap warm air inside the anorak when cinched.

#### *Polimoda*

Hip-length, hooded outerwear worn by Eskimos. The word is believed to come from the Aleutian Islands. The anorak was originally made of sealskin. In the second half of the 20th century it is usually made of nylon and insulated with other man-made fibres and worn exclusively as outerwear. The anorak is zipped or buttoned from hip to neck and worn both for sporting activities and as casual attire. During the 1980s designers produced anoraks in satin and luxurious fabric for eveningwear.

#### *thetalbotsinc.com/press/fashion/glossary.asp*

Fingertip length jacket that has a drawn-in waist and is generally hooded.

#### *Wikipedia*

An anorak is a type of heavy jacket with a hood, often lined with fur or fake fur, so as to protect the face from a combination of freezing temperatures and wind. This kind of garment, originally made from caribou or seal was invented by the Caribou Inuit, Inuit (Eskimo) of the Arctic region, who needed clothing that would protect them from wind chill and wet while hunting and kayaking. The word anorak comes from the Kalaallisut word anoraq, while the word parka is of Aleut origin. Certain types of Inuit anoraks have to be regularly coated with fish oil to keep their water resistance.

### **Anso**

#### *Superfloors*

The leading edge technology of Anso Caress nylon has taken carpet fiber a step further. Silk-like softness has now been married to the performance of nylon. The minute you step on to it, you will want to kick off your shoes and stay awhile. Carpet made from Anso Caress Nylon is not only unbelievably soft, it's naturally tough.

### **Antagonism**

#### **Antagonizam**

#### *Environmental Engineering Dictionary, edited by C. C. Lee*

(1) An interaction of two or more chemicals which results in an effect that is less than the sum of their effects taken independently. (2) Interference or inhibition of the effect of one chemical by the action of another.

#### *Polymer science dictionary, by Mark S.M. Alger*

The combined effect of the two components of a mixture being less than the sum of their individual effects. The opposite of synergism, and therefore undesirable. Examples are sometimes found in antioxidants, such as amine/carbon black mixtures, where the amine is thought to be deactivated by becoming adsorbed onto the carbon black particles.

### **Antelope**

#### *lederfachhandel.de/lexikon?lang=en*

A fine, soft leather with velvety, lustrous nap, made from antelope or gazelle skin sueded on the flesh side or sometimes, in the case of antelope, frized on the grain side. b) In the shoe and handbag trades sometimes used to describe a dyed reindeer sueded on the frized grain side. In Germany the term is often applied incorrectly to suede leather.

### **Anterine**

*antique vintage dictionary*

worsted fabric of silk and mohair or cotton

*Norwicktextiles*

a fine close sett silk warp crossed by a heavier worsted thread which formed a cross rib.

### **Anthracene**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

$C_6H_4(CH)_2C_6H_4$ . A colourless crystalline solid that melts at  $217^{\circ}C$  and boils at  $340^{\circ}C$ , and is insoluble in water and soluble in alcohol and ether. It is produced during the distillation of coal tar and is used in making dyes.

### **Anthracite**

*Texsite*

The established name for a fashionable dark-grey colour used in clothing textiles.

### **Antrapurpurin**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

$C_6H_3OH(CO)_2C_6H_2(OH)_2$ . A tricyclic orange-yellow crystalline solid. Melts at  $369^{\circ}C$  and boils at  $462^{\circ}C$ . Slightly soluble in hot water and soluble in alcohol and alkalies. Used in dyeing textiles and in organic synthesis.

### **Antraquinone**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

$C_6H_4(CO)_2C_6H_4$ . Yellow needles that are insoluble in water and soluble in alcohol and ether. Melts at  $286^{\circ}C$  and boils at  $379-381^{\circ}C$ . Used as a cathartic and in the manufacture of certain dyes.

### **Anthraquinone dyes**

*Britannica*

any of a group of organic dyes having molecular structures based upon that of anthraquinone. The group is subdivided according to the methods best suited to their application to various fibres.

*Ca-bc.com/zip\_internacional/usedmach/education/*

Dyes that have anthraquinone as their base and the carbonyl group ( $>C=O$ ) as the chromophore. Anthraquinone-based dyes are found in most of the synthetic dye classes. [uqu.edu.sa/files2/tiny\\_mce/plugins/filemanager/files/4300270/al./industrial dyes.pdf](http://uqu.edu.sa/files2/tiny_mce/plugins/filemanager/files/4300270/al./industrial%20dyes.pdf)

Once the second most important class of dyes, it also includes some of the oldest dyes; they have been found in the wrappings of mummies dating back over 4000 years. In contrast to the azo dyes, which have no natural counterparts, all the important natural red dyes were anthraquinones [1].

However, the importance of anthraquinone dyes has declined due to their low cost-effectiveness.

Anthraquinone dyes are based on 9,10-anthraquinone (1), which is essentially colorless. To produce commercially useful dyes, strongly electron donating groups such as amino or hydroxyl are introduced into one or more of the four positions. The most common substitution patterns are 1,4, 1,2,4, and 1,4,5,8-. To optimize the properties, primary and secondary amino groups (not tertiary) and hydroxyl groups are employed. These ensure the maximum degree of  $\pi$ -orbital overlap, enhanced by intramolecular hydrogen-bonding, with minimum steric hindrance. The principal advantages of anthraquinone dyes are brightness and good fastness properties, including lightfastness, but they are both expensive and tinctorially weak. However, they are still used to some extent, particularly for red and blue shades, because other dyes cannot provide the combination of properties offered by anthraquinone dyes, albeit at a price.

## **Anthropogenic**

### **Antropogen**

*Environmental Engineering Dictionary, edited by C. C. Lee*

(1) Human made. Usually used in the context of emissions that are produced as the result of human activities. (2) Made or generated by a human or caused by human activity. The term is used in the context of global climate change to refer to gaseous emissions that are the result of human activities, as well as other potentially climate-altering activities, such as deforestation.

## **Anthropometry**

*bodyscan.human.cornell.edu/scene5b96.html*

The study of measurement of humans, used in anthropology for classification and comparison, and in apparel and equipment design for identifying size and shape variation in the population. Formal anthropometry studies make use of calipers, special pressure sensing tape measures, and highly machined and precise measuring tools called anthropometers. Many other measurement procedures have been developed by tailors and dressmakers to measure individuals for custom clothing, primarily using regular tape measures. 3D body scanners are the newest tool for anthropometry.

*Environmental Engineering Dictionary, edited by C. C. Lee*

The branch of human sciences that deals with body measurements.

*ergoweb.com/resources/faq/glossary.cfm*

Anthropometry is the branch of the human sciences that deals with body measurements.

*raymondcorp.com/solutions/glossary.cfm?selector=A*

The application of scientific physical measurement methods to human subjects for the development of engineering design standards. It includes static and functional (dynamic) measurements of dimensions and physical characteristics of the body as they occupy space, move, and apply energy to physical objects, as a function of age, sex, occupation and other demographic variables.

*Wikipedia.org*

Anthropometry (Greek *άνθρωπος*, man, and *μέτρον*, measure, literally meaning "measurement of humans"), in physical anthropology, refers to the measurement of the human individual for the purposes of understanding human physical variation.

Today, anthropometry plays an important role in industrial design, clothing design, ergonomics and architecture where statistical data about the distribution of body dimensions in the population are used to optimize products. Changes in life styles, nutrition and ethnic composition of populations lead to changes in the distribution of body dimensions (e.g., the obesity epidemic), and require regular updating of anthropometric data collections.

*Wiktionary.org*

The science of measuring the human body in order to ascertain the average dimensions of the human form at different ages, and in different divisions of race, class etc.

[workriteergo.com/ergonomics/glossary.asp](http://workriteergo.com/ergonomics/glossary.asp)

The study of physical dimensions in people, including the measurement of human body characteristics such as size, breadth, girth, and distance between anatomical points.

Anthropometry also includes segment masses, the centers of gravity of body segments, and the ranges of joint motion, which are used in biomechanical analyses of work postures.

### **Antibacterial finish, Anti bacterial, Antimicrobial, Anti-microbial finish, Biocide finish** *Britannica*

Antibacterial finishes are germicides applied to fabrics to prevent odours produced by bacterial decomposition, such as perspiration odours, and also to reduce the possibility of infection by contact with contaminated textiles. Fabrics may also be treated with germicides to prevent mildew, a parasitic fungus that may grow on fabrics that are not thoroughly dried. Both mildew and rot, another form of decay, may also be controlled by treatment with resins.

[Ca-bc.com/zip\\_internacional/usedmach/education/](http://Ca-bc.com/zip_internacional/usedmach/education/)

A treatment of a textile material to make it resistant to, or to retard growth of, bacteria.

#### *Carpet-rug*

A chemical treatment added to carpet to reduce the growth of common bacteria, fungi, yeast, mold and mildew.

#### *Chemicalfabricsandfilm*

A compound commonly added to a polymeric compound or coating to inhibit the growth of bacteria, fungi and algae on the surface of a finished product.

#### *Handbook of technical textiles Edited by A R Horrocks and S C Anand*

Problems of hygiene are coming more and more to the fore in textile finishing<sup>18</sup> and it is now generally realised that a microbiocidal finish is very valuable in certain textiles for two reasons: as a prophylactic measure to avoid reinfections and as a deodorant. Perhaps at this stage it might be useful to define some of these terms:

- Bacteriostatic: a chemical that inhibits the growth of bacteria. Fabric that has been impregnated with a bacteriostat will stop the growth of germs, which eventually die in time.
- Fungistatic: a chemical that inhibits the growth of fungi. Bactericidal, fungicidal and microbicidal all mean that the chemical will kill these three types of microorganism. Here are just a few of the many microorganisms with the infections they cause: • Staphylococcus aureus: found in mucus membranes, causes boils and abscesses • Pseudomonas pyocyanea: causes spots and boils • Trichophyton menagrophytes: fungus, which causes dermatomycosis of the feet • Candida albicans: yeast-like mould which is the main cause of thrush and foot rot.

#### *Library*

finish that makes a fabric resistant to the growth of bacteria.

[nicefashion.org/en/resources/dictionary.html](http://nicefashion.org/en/resources/dictionary.html)

Antimicrobial is a wet finishing technique that is durable. It is an application of chemicals that inhibit the growth of odor causing bacteria and fungi. This is of particular use on wicking synthetic performance fabrics, which tend to accumulate perspiration and wetness, breeding microorganisms. It is also used to help alleviate asthmatic reactions by creating a hostile environment for dust mites.

#### *Plastics Materials and Processes, by Charles A. Harper, Google books*

Antimicrobials or algicides prevent degradation of plastics by fungi, bacteria and algae. This degradation can take the form of shortening of useful life, odour and embitterment and lowering of tensile strength and electrical properties.

finish that makes a fabric resistant to the growth of bacteria.

[Seamlessconsort.com](http://Seamlessconsort.com)

A benefit achieved through either yarn construction or topical application to a garment where an additive is used to inhibit the growth of bacteria on or within a fabric. This does NOT imply the “killing” of bacteria, but simply the prevention of further growth.

*Technical centre*

A fabric that has been chemically treated or a fiber that is created by incorporating the anti-bacterial chemical agent into the fiber formula, making the finished fiber or fabric resistant to, or inhibiting the growth of micro-organisms.

*Unitedfabrics*

A fabric or a fiber that incorporates an anti-bacterial chemical agent into the fiber formula, making the finished fiber or fabric resistant to, or inhibiting the growth of micro-organisms. Useful in outdoor, healthcare and hospitality applications.

*us.hessnatur.com/shop/glossary.action;jsessionid?letter=a*

Prevents bacteria or fungi. The substances can cause skin allergies and their degradability in the wastewater is poor. These methods are scarcely used any more for clothing because of the ecological concerns. They are used for hygienic reasons in hospital fabrics and camping equipment, to prevent tents from molding, decaying and rotting. A neem finish is an environmentally and skin friendly alternative. A substance extracted from neem oil is used for the treatment. Neem oil is obtained from the seeds of the neem tree. More than 200 types of insects and a wide range of mites, worms, fungi, bacteria and even some viruses react sensitively to the active agents of the neem. Even small concentrations can prevent the organisms from growing, developing and reproducing. Neem substances are harmless for humans.

**Antiblocking agent, Anti-blockig agent, Antiblock agent, Antiblock, Abherent, Antitack, Demoulding agent, Mould lubricant, Mould oil, Mould release agent, Parting agent, Release agent,**

**Antiblokator, Odjeljivač, Odvajalo kalupljevine, Odvajalo otpreska, Sredstvo protiv blokiranja, Sredstvo protiv sljublivanja, Sredstvo za odjeljivanje, Sredstvo za odvajanje, Sredstvo za sprječavanje lijepljenja slojeva, Vanjsko mazivo**

*Academic Press dictionary of science and technology, by Christopher G. Morris*

A substance that prevents or inhibits material from adhering.

*ASM materials engineering dictionary, by Joseph R. Davis*

Materijal u tvorbi plastike koji se koristi kao tanki sloj na površini kalupa da spriječi lijepljenje polimera i kalupa.

*composite.about.com/library/glossary/a/bldef-a8.htm*

A coating or film applied to one surface to prevent or reduce its adhesion to another surface brought into intimate contact with it.

*Bloomerplastics.com*

Additive incorporated in film to prevent the adhesion (sticking) between touching layers of film during fabrication, storage, or use.

*Chrostiki.gr*

an additive incorporated in or applied to plastic films to prevent the unintentional adherence during production, storage or use

*composite.about.com/library/glossary/p/bldef-p3807.htm*

Mazivo, najčešće vosak, silikon ili fluorokarbonska tekućina, koje se koristi za oblaganje kalupa kako bi se spriječilo da se izlivena plastika zalijepi za njega i da se olakša vađenje lijevanog predmeta iz kalupa. Najčešće se na tržištu pojavljuje u obliku aerosola, radi lakše aplikacije.

*Encyclopedic Dictionary of Polymers, Volume 1 edited by Jan W. Gooch*

(1) A lubricant, often wax, silicone oil, or fluorocarbon fluid or solid, used to coat a mold cavity to prevent the molded piece from sticking to it, and thus to facilitate its removal from the mold. Parting



agents are often packaged in aerosol cans for convenience in application. (2) A coating or film applied to a surface to prevent or reduce its adhesion to another surface brought into intimate contact with it. When applied to plastic films they are called antiblocking agents. Those applied to moulds, calendar rolls are sometimes called release agents or parting agents.

*Environmental Engineering Dictionary, edited by C. C. Lee*

A substance used to prevent materials, such as rubber stocks, from sticking together during periods of storage.

[exactdispensing.com/downloads/reference-data/exact-glossary/#R](http://exactdispensing.com/downloads/reference-data/exact-glossary/#R)

Kemikalija koja sprječava prijanjanje plastičnog materijala o površinu, npr. kalupa.

*Hrvatsko nazivlje polimerstva, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Tvar koja se dodaje materijalu radi sprečavanja međusobnoga sljepljivanja tijekom proizvodnje, skladištenja ili uporabe. Antiblokator se dodaje radi sprečavanja sljepljivanja filma, folija i sl.**

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

A coating that prevents surfaces from adhering to each other, Also – release agents, adhesives.

[kemplite.com/frp\\_encyclopedia.cfm](http://kemplite.com/frp_encyclopedia.cfm)

Mazivo, najčešće vosak, koji sprječava prijanjanje lijevane plastike o kalup. Za rad pod vrlo visokom temperaturom koristi se cinkov stearat, potojan i na temperaturama na kojima bi se vosak ispario ili apsorbirao.

[netcomposites.com/glossary](http://netcomposites.com/glossary)

A lubricant, liquid, or powder (often silicone oils and waxes), used to prevent sticking of molded articles in the cavity.

[oldnc.3dn.ru/Docs/Harper.C.A.Plastics\\_Materials\\_and\\_Proc-s.pdf](http://oldnc.3dn.ru/Docs/Harper.C.A.Plastics_Materials_and_Proc-s.pdf)

Antiblocking or flattening agents act to prevent various plastic films (e.g., polyvinyl chloride, polyolefins) from adhering to each other because of static electricity buildup or cold flow.

Slip agents perform many of the same functions. However, slip agents also play a role during processing in preventing plastics from sticking to metal. Antiblocking agents can be applied externally or internally and include such materials as waxes, metallic salts, fatty acids, fumed silicas, and even other plastics (e.g., polyvinyl alcohol, polysiloxanes, and fluoroplastics). Silicates and silicas can also be used as flattening agents to affect the surface of the films so that they will not adhere to each other. These function by roughening the surface film to give a spacing effect. Typical of this application is the use of calcium silicate in PVC.

*Polimerni materijali, skripta*

(1) Elektro nevodljivi filmovi i folije međusobno se priljubljuju - blokiraju. Ovi dodaci se također dodaju u polimer i zatim migriraju prema površini materijala gdje smanjuju trenje, a time i blokiranje. (2) Odjeljivači su dodaci koji smanjuju lijepljenje polimera na metalne površine kalupa te olakšavaju odjeljivanje i vađenje izratka.

[precisioneering.com/glossary\\_definitions.htm](http://precisioneering.com/glossary_definitions.htm)

Film koji se koristi da se olakša vađenje lijevane plastike iz kalupa. Za tu se je svrhu pokazao pogodan orijentirani poliesterski film od 3-5 mil (Mylar, Types A,S.ili D; ili Melinex11, Types S,O, ili 442).

*Specialchem4coatings*

Additive used to lessen the adhesion of coated surfaces to another surface. Acts by producing a slight roughening of the surface. Are typically finely divided, solid minerals, but some are waxes.

*Struna – Hrvatsko strukovno nazivlje - Polimeri*

(1) Tvar koja se nanosi na stijenke kalupne šupljine ili se dodaje polimernom materijalu radi lakšega odvajanja kalupljevine od stijenke kalupne šupljine. (2) Tvar koja se dodaje materijalu radi sprečavanja međusobnoga sljepljivanja tijekom proizvodnje, skladištenja ili uporabe. Antiblokator se dodaje radi sprečavanja sljepljivanja filma, folija i sl.

*Whittington's Dictionary of Plastics, by James W. Carley*

An additive that is incorporated into resins and compounds to prevent surfaces of products (mainly films) from sticking to each other or to other surfaces. The term is not generally used for coatings, dusts, or sprays applied to surfaces for the same purpose, or as slip agents, after products have been formed. Antiblocking agents usually are finely divided, solid, infusible materials, such as silica, but can also be minerals or waxes. They function by forming minute protrusions that maintain separating air spaces that interfere with adhesion.

*Whittington's Dictionary of Plastics, by James W. Carley*

Coating or film applied to one surface to prevent or reduce its adhesion to another surface brought into intimate contact with it. Abherents applied to plastic films are often called anriblocking agents. Those applied to moulds, calender rolls, etc. are sometimes called release agents or parting agents.

### **Anti-blushing agent**

*Naldr.nal.usda.gov*

A material added to a lacquer to prevent precipitation during the evaporation of the solvents.

### **Antichlor**

*Antoine.frostburg.edu*

A chemical compound that reacts with chlorine-based bleaches to stop the bleaching.

Thiosulfate compounds are antichlors.

*Ca-bc.com/zip\_internacional/usedmach/education/*

A chemical, such as sodium thiosulfate, used to remove excess chlorine after bleaching.

*ebooksread.com/authors-eng/louis-harmuth/dictionary-of-textiles-hci/1-dictionary-of-textiles-*  
*HAND BOOK ON GLOSSARY OF TEXTILE TERMS, BUREAU OF INDIAN STANDARDS*  
*NEW DELHI 110 002, UDC 001.4/677 (021) ISBN 81-7061-009-5*

A chemical used to remove residual traces of active chlorine from materials that have been bleached, chlorinated, or otherwise treated by means of hypochlorite or other oxidizing liquors containing active chlorine. Examples are sodium bisulphite or thiosulphate, sulphurous acid and peroxides.

*hci.shtml*

A variety of sulphites, used to remove bleaching powder from the fibers.

*Free dictionary*

A substance, such as sodium thiosulfate, used to neutralize the excess chlorine or hypochlorite left after bleaching textiles, fiber, or paper pulp.

*list.emich.edu/~dyers/pdfs/dyeglossary.PDF*

a chemical used to neutralize chlorine bleach. It can be very difficult to completely rinse chlorine bleach out of fabric. The residual bleach can interfere with subsequent dyeing, or can eventually damage the fibre. A rinse in a solution of antichlor, most commonly sodium bisulfite, will quickly neutralize the bleach. Hydrogen peroxide also functions to neutralize chlorine bleach. A thorough rinse is required after using antichlor. All of the common antichlor compounds essentially convert free chlorine bleaching agents to hydrochloric acid. If enough acid is produced, it can cause liberation of free chlorine gas, which can be hazardous and is certainly very irritating. Sodium carbonate added to the antichlor rinse will neutralized the acid. ACID RINSES, SUCH AS VINEGAR IN WATER, SHOULD NOT BE USED TO STOP CHLORINE BLEACHING. For neutralization of chlorine in water used to make up dye baths, sodium thiosulfate is the preferred antichlor agent.

*Wikipedia*

An antichlor is a substance used to remove the excess of chlorine. Typical antichlors are sodium bisulfite and sodium thiosulfite. The antichlor is usually added right before the end of the bleaching process. It is mainly used on fiber, textiles, and paper pulp.

## **Anticlinging finish**

*Future textiles*

Anti-clinging finishes are applied to fabrics made from synthetic fibre to prevent garments from clinging to the body. They are identical to Anti-static finishes.

## **Anticoagulant**

**Anticoagulans, Sredstvo protiv koagulacije, Sredstvo protiv zgrušavanja**

*Struna – Hrvatsko strukovno nazivlje - Polimeri*

Tvar koja se dodaje kao punilo radi usporavanja djelovanja bakterija koje prouzrokuju brzu koagulaciju. Antikoagulans se, primjerice, dodaje lateksu iz kaučukovca.

## **Anticockle treatment**

*resil.com/c.htm*

A mild setting treatment imparted to wool knitwear usually by heating the textile material in the presence of an aqueous solution of a reducing agent. A mild setting treatment imparted to wool knitwear usually by heating the textile material in the presence of an aqueous solution of a reducing agent. The object of this treatment is to prevent distortion and cockling of the knitted structure during subsequent wet processing

## **Anticorrosive agent, Corrosion inhibitor**

**Inhibitor korozije, Sredstvo za sprječavanje korozije, Sredstvo za zaštitu od korozije**

*REČNIK TRIBOLOŠKIH TERMINA , B. Ivković, Kragujevac 2012.*

Aditiv koji sprečava pojavu korozije podmazivanih metalnih površina zbog dejstva vode i drugih nečistoća u zoni kontakta.

*struna\_knj\_14\_strelementi\_04(1381).pdf – Foxit Reader*

**Aditiv koji sprečava, usporava ili ograničuje brzinu korozije podmazivanih metalnih površina.**

## **Anticounterfeiting systems**

*Polimoda*

They identify a product and ensure its authenticity. They include: anti-counterfeiting hot stamped holograms, anti-counterfeiting magnetic threads, anti-counterfeiting microprinted threads, radiofrequency, etc.

## **Antidegradant**

**Antidegradans, Protudegradacijsko sredstvo, Sredstvo protiv razgradnje**

*Hrvatsko nazivlje polimerstva, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Tvar koja se dodaje u materijal radi sprečavanja ili usporavanja razgradnje.**

*Specialchem4coatings*

Compounding material used to retard deterioration caused by oxidation, ozone, light and combinations. *Note:* Antidegradant is a generic term for such additives as Antioxidants, Antiozonants and UV / Light stabilizers.

*Struna – Hrvatsko strukovno nazivlje - Polimeri*

Tvar koja se dodaje u materijal radi sprečavanja ili usporavanja razgradnje.

*Wikipedia.org*

An anti-degradant, or deterioration inhibitor is an ingredient in rubber compounds to deter the aging of rubber products. Anti-degradants include antioxidants and antiozonants. Since the aging of rubber is caused largely by oxygen, materials that quickly react with oxygen can be used as anti-degradant depending on the type of rubber, although organic compounds that easily react with oxygen are recommended for use as anti-degradant (chemical antioxidant).

On the other hand, the surface of rubber is sometimes covered with materials that do not easily react with oxygen to prevent direct contact between rubber and oxygen (physical anti-degradant, e.g., wax products). Chemical antioxidants are classified into amine type anti-degradant and phenolic type anti-degradant depending on the chemical composition or into polymer stabilizers, thermal anti-degradants, and deterioration inhibitors depending on the major aging action; in many cases, however, it is difficult to distinguish their effects. Anti-degradants are further classified into staining anti-degradants or non-staining anti-degradants depending on whether or not rubber is colored, discolored, or otherwise stained.

### **Antifelt finish, Antifelting finish, Non-felt finish**

*p2pays.org/ref/13/12194.pdf*

Anti-felt finishing is applied with the purpose of conferring anti-felt characteristics to the wool goods. It is required when the goods need to be repetitively washed in a laundry machine without shrinking. Two treatments, which are also complementary, are applied: (1) oxidising treatment (subtractive treatment), (2) treatment with resins (additive treatment). These treatments can be applied at any stage of the process and on all different make-ups. They are most commonly applied on combed tops for specific end-products (e.g. underwear).

*Texsite*

makes it possible to machine-wash woollen products, limits felting and shrinkage, and maintains the original qualities of the fabric surface. The suppression of felting can be achieved by the proper construction of a yarn, woven fabric or knit, but perfection in this regard is attainable only by a chemical f. in connection with the removal of flaky layers of wool or the suppression of the effects of a flaky surface by means of proper film-forming materials.

*us.hessnatur.com/shop/glossary.action;jsessionid=E8C3E0FD7E76B027B5C4880C0086FD4*

Its scaly structure gives wool excellent fulling or felting properties. As a result, untreated woollen clothing can only be washed with great care. The temperature, mechanism, time and detergent used play a very important role. Some manufacturers apply artificial resins to the wool to prevent unwanted matting. This process coats the scaly surface, thus preventing the scales from getting caught up with each other. This causes not only the loss of the felting ability, but also of the natural characteristics of wool. In terms of human toxicology, artificial resin finishes are very questionable since the skin is no longer in direct contact with the wool fiber. Artificial resins containing formaldehyde are suspected of causing allergies. The treatment is also questionable from an ecological perspective. It not only causes problems with wastewater pollution but also when disposing of the products since the biodegradability is very low. One alternative to anti-felt finishes using artificial resins is to use oxidation agents to chemically modify the scaly layer. This softens the scales thus preventing them from interlinking with each other. The process does, however, risk causing irreversible damage to the wool fiber.

### **Antifelting agents**

*Ca-bc.com/zip\_internacional/usedmach/education/*

Products that prevent or minimize matting and compaction of textile materials.

*umweltdaten.de/publikationen/fpdf-l/2274.pdf*

Anti-felting agents are used with animal fibres to reduce shrinkage during washing. Various chemicals can be used for the purpose reducing or oxidizing agents, chlorocyanurate, polysiloxane, polyurethane, polyamide-epoxide copolymers etc.

### **Antiflame finish**

*Tintoriavago.com*

treatment rendering textiles flame-resistant to varying degrees and preventing the spreading of flames. Can be washproof (permanent) to varying degrees. Related terminology:

- 1) Flame Retardant or Flame Resistant: textile with partial nonflammability.
- 2) Fireproof: self-extinguishing textile after removal of flame.
- 3) Flameproof : term used for textiles suffering little damage from flames.
- 4) Glow Resistant: textiles resistant to incandescence (combustion without flames).
- 5) After Glow: textile resistant to flames and post incandescence.

**Antifoaming agent, Antifoam, Antifoam additive, Antifoam agent, Defoamer, Defoaming agent, Foam inhibitor, Foam killer, Foam modifier**

**Antipjenilo, Sredstvo protiv pjenja, Sredstvo za sprječavanje pjenja, Sredstvo za uklanjanje pjene**

*About.com*

An additive which reduces the surface tension of a solution or emulsion, thus inhibiting or modifying the formation of a foam. Commonly used agents are insoluble oils, dimethyl polysiloxanes and other silicones, certain alcohols, stearates and glycols. The additive is used to prevent formation of foam or is added to break a foam already formed.

*Answers.com*

A substance, such as silicones, organic phosphates, and alcohols, that inhibits the formation of bubbles in a liquid during its agitation by reducing its surface tension.

*Ca-bc.com/zip\_internacional/usedmach/education/*

An additive that minimizes the formation of bubbles within or on the surface of a liquid by reducing the forces that support the bubble's structure.

*carpetbuyershandbook.com/carpet-glossary/glossary-d/*

A liquid or powdered material that suppresses or inhibits the formation of foam during cleaning. A surface active agent that is used in cleaning to reduce detergent foaming.

*Cleansource.com*

A surface active agent that is used in cleaning to reduce foaming. Usually introduced into the recovery tank of extraction equipment to reduce suds caused by shampoo left in the carpet.

*Cool-palimpsest.stanford.edu*

Agents which inhibit the build up of foam, or which reduce foam or entrapped air by causing the bubbles to burst, thus releasing the air. Most commercial defoamers are mixtures of surface-active agents, hydro-carbons, alcohols, polymers, etc., to increase their effectiveness in multiple applications. Defoamers are used in papermaking operations. Also called "anti-foam agents."

*Encyclopedic Dictionary of Polymers, Volume 1* edited by Jan W. Gooch

A substance that, when added in small percentages to a liquid containing gas bubbles, causes the small bubbles to coalesce into larger ones that rise to the surface and break. Additive used to reduce or eliminate foam formed in a coating or a coating constituent.

*Enviro-solution.com*

Substance used to reduce or eliminate foam. Destabilizes the wall structure of air bubbles, causing them to collapse and thus reducing the foam.

*Fluidlife*

An additive found in most oils to reduce the foaming that results from aeration of the oil in service. Most common antifoam agent is silicon. Reduces the film strength of the bubble allowing it to break easily.

*Future textiles*

A substance that prevents foam generation, e.g., in jet dyeing machines, or causes its collapse, e.g., in print pastes.

*H2oco.com*

Also called anti-foam - A chemical added to the water to make the suds or foam go away. These products do not remove the source of the suds. Most often, the water must be drained and refilled to remove the soaps, oils and other causes of foaming. Shocking and super chlorination may help prevent foaming.

*Inda.org*

An additive that minimizes the formation of bubbles within or on the surface of a liquid by

reducing the surface forces that support the bubble's structure.

*Iultcs.org*

Finishing auxiliary used to avoid foaming of finish preparations. Especially used in finishing applications like curtain coating and roller coating.

*Miscoprod.com*

A substance used to reduce foaming due to agitation. Defoamers include silicone fluids and organic phosphates.

*Naftni rječnik – Perić*

Tvar za sprječavanje ili smanjivanje pjenjenja i za uklanjanje ili smanjivanje pjene redukcijom površinske napetosti. Sredstva protiv pjenjenja su površinski aktivne tvari, na primjer aluminijev stearat, oktilni alkohol, tributilfosfat i organski silikoni.

*neirc.org/carpet\_glossary.htm*

A surface-active agent that is used in cleaning to reduce detergent foaming.

*nuancesol.com/glossary\_terms.html*

A substance used to reduce foaming due to agitation. Defoamers include silicone fluids and organic phosphates.

*pcimag.com/Articles/Feature\_Article/BNP\_GUID\_9-5-2006\_A\_1000000000000597851*

Additive used to reduce or eliminate foam in a coating or coating constituent. The terms 'defoamer' and 'antifoaming' agent are often used interchangeably. In fact, they are not quite the same. A defoamer is a surface-active agent that stops the foam and breaks the bubble once it has been formed. It is a bubble breaker. An antifoaming agent prevents the formation of foam so it never forms.

*Processing and Finishing of Polymeric Materials, 2 Volume Set, by Wiley*

The control or elimination of foam that occurs in many industrial processes is a vital factor in their efficient operation. Additives for this purpose are the largest single category of process aids used in the chemical industry. They are used in low concentration to achieve this effect and are known variously as defoamers, antifoaming agents, foam inhibitors, foam suppressants, air release agents and foam control agents. Defoaming implies breaking preexisting foam, whereas antifoaming or foam inhibition indicates prevention of the formation of that foam. Such distinctions call for different product features. A defoamer is expected to exhibit rapid knockdown of a foam, whereas longevity of action might be the requirement in many antifoam applications. Despite this varying performance features, many applications require both preventive and control functions, and in practice the same type of materials are used for both antifoaming and defoaming.

*Specialchem4coatings.com*

Chemical which reduces and/or eliminates foam. Mainly used in aqueous paints where it pops bubbles when squirted over water surfaces.

*Textile preparation and dyeing, by Asim Kumar Roy Choudhury, Google books*

Foams can be destabilised by increasing the liquid drainage and thereby thinning and eventually rupture of the film. Defoamers are generally anionic or nonionic. They can be water-soluble surfactants with polar/nonpolar moiety, or, more frequently, emulsions of water-insoluble silicones or organic-based compounds of low volatility and high spreading

power. The second group includes fatty acids (their glycerides and other esters), higher alcohols, polyglycols or insoluble alkyl esters of phosphoric acid.

[struna\\_knj\\_14\\_strelementi\\_04\(1381\).pdf](#) – Foxit Reader

#### **Aditiv koji sprečava ili smanjuje pjenjenje tekućega maziva.**

*Textile fibers, dyes, finishes, and processes, by Howard L. Needles*

Excess foaming during laundering can occur readily due to agitation and can lower the overall effectiveness of soil removal. On the other hand, the consumer views moderate and stable foam formation during laundering as an indication of detergency and soil removal. Two approaches have been used to provide products which meet both of these concerns.

Antifoaming agents such as long-chain aliphatic alcohols, emulsified terpenes (naturally occurring alcohols) and organosilicones are used in conjunction with foaming surfactants to moderate and lower foam formation. The second approach has been the use of detergent-like derivatives that modify and stabilise foaming in conjunction with surfactants. These foam modifiers includes monoalkylamine adducts of fatty acids and their polyethylene oxide derivatives.

*Wikipedia*

A defoamer or an anti-foaming agent is a chemical additive that reduces and hinders the formation of foam in industrial process liquids. The terms anti-foam agent and defoamer are often mixed up since these often are the same products. It depends on where it is in use which term is the most common. A defoamer is normally used to increase process speed and reduce other problems that foam may cause in industrial processes. It addresses both problems with surface foam and entrained/entrapped air. A wide variety of chemical formulas are available to promote coalescence of foam.

#### **Antifogging agent, Antifogger, Antidrip agent**

[.solvaychemicals.us/static/wma/pdf/6/6/9/0/PGL\\_Industrial\\_Application.pdf](#)

If water or moist air is entrapped in a closed system, condensation droplets (fog) form on the inner surfaces when the temperature cools down below the dew point. This phenomenon is a big issue in fresh food packaging and in greenhouses. Antifogging films are also used in greenhouses where they allow better light penetration, enhancing photosynthesis and thus increasing energetic yields. They also prevent water from dripping on the cultivated plants, which avoid plant damage (e.g., seedlings). In food packaging, films with good antifogging properties offer a more attractive display of the packaged products and enhance their shelf life.

[ces/glossary/index.aspx?id=A](#)

Additive (mostly surface-active compounds) which is added to films or sheets in order to eliminate fogging and/or dripping that is caused by excess humidity.

[oldnc.3dn.ru/Docs/Harper.C.A.Plastics\\_Materials\\_and\\_Proc-s.pdf](#)

These agents are intended to prevent fogging that could obscure viewing in products such as polyvinyl chloride (PVC) packaging film or PVC windows. The fogging effect in these products is the result of water condensation on the inside surface of the film (e.g., in a package the water will often come from the packaged products such as food). The antifogging agents, typically specific fatty acid esters, function either by causing the water droplets to form a continuous film on the inside surface or by imparting a hydrophobic characteristic to the film surface, thereby preventing the water droplets from forming.

*Whittington's Dictionary of Plastics, by James W. Carley*

An additive that prevents or reduces the condensation of fine droplets of water on a shiny surface. Such additives function as mild wetting agents that exude to the surface and lower the surface tension of water, thereby causing it to spread into a continuous film. Antifogging agents are much used in PVC wrapping films for meats and other moist foods. Examples are

alkylphenol ethoxylates, complex polyol monoesters, polyoxyethylene esters, sorbitan esters of oleic acid, and sorbitan esters of fatty acid.

*Wikipedia.org*

Anti-fog agents, also known as anti-fogging agents and treatments, prevent the condensation of water on a surface in the form of small droplets which resemble fog. Anti-fog treatments are often used for transparent glass or plastic surfaces in optics, such as the lenses and mirrors found in glasses, goggles, camera objectives, and binoculars. Anti-fog treatments work by minimizing surface tension, resulting in a non-scattering film of water instead of single droplets, an effect called wetting. Anti-fog treatments usually work either by application of a surfactant film or by creating a hydrophilic surface.

### **Antifray laquer**

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

A material used to coat textile or glass braid to prevent the ends from fraying when they are cut.

### **Antifreeze**

#### **Antifriz, Sredstvo protiv zamrzavanja**

*Environmental Engineering Dictionary, edited by C. C. Lee*

A substance, e.g. ethylene glycol, that lowers the freezing point of a liquid if the antifreeze substance is added to the liquid.

### **Antifriction bearing**

*vidi*

### **Rolling bearing**

### **Antifungal**

*graylineinc.com/glossary.htm*

Additive used to retard fungal growth on textiles, especially for applications in which textiles are exposed to damp environments.

*Technical centre*

Inhibits or kills fungi.

*wordnetweb.princeton.edu/perl/webwn?s=antifungal*

any agent that destroys or prevents the growth of fungi

### **Antimacassar**

*Britannica*

protective covering thrown over the back of a chair or the head or cushions of a sofa, named after Macassar, a hair-oil in general use in the 19th century. The original antimacassars were made of stiff white crochet-work, but later soft, coloured materials, such as embroidered wools or silks, were used. In the 20th century the use of antimacassars largely died out.

*Fabricdictionary*

A piece of cloth originally pinned to the back of a chair to protect the upholstery from hair oil (macassar). Today, although antimacassars are still available, changes in hair grooming and the development of fairly easy-to-clean upholstery fabrics have made their purpose primarily decorative.

*Reference dictionary*

a small covering, usually ornamental, placed on the backs and arms of upholstered furniture to prevent wear or soiling; a tidy.

*Wikipedia*

An antimacassar is a small cloth placed over the backs or arms of chairs, or the head or cushions of a sofa, to prevent soiling of the permanent fabric.



The name is attributable to macassar oil, an unguent for the hair commonly used in the early 19th century — the poet Byron called it, "thine incomparable oil, Macassar."

### **Antimelt finish**

*mofa.go.jp/region/asia-paci/indonesia/agree0807.pdf*

The finishing carried out for the addition of the property in which woven and knitted fabric is prevented from melting by heat. It is carried out for preventing the phenomenon in which a hole is made in synthetic fibre product by the fire of cigarette and the friction heat at the time of sliding.

### **Antimicrobial dyes**

#### **Protumikrobna bojila**

*Advances in the Dyeing and Finishing of Technical Textiles, edited by M Gulrajani*

Microbe, the minute organisms, can cause allergic responses, disease, infection, objectionable odours and unsightly stains. They require certain conditions to grow. Textile materials and clothing are known to be susceptible to microbial attacks. As they provide a large surface area and absorb moisture required for microbial growth. In order to control the growth of microbes, several antimicrobial finishes are used. Development of inherently antimicrobial dyes has been an extremely active area in functional textile dye research. In fact, the first clinically available antimicrobial agents were the sulphonamides, discovered as a byproduct of the azo dye Prontosil.

### **Antimicrobial finish**

#### **Protumikrobna dorada**

*Glossary of textile terms – True.*

Chemical treatment applied to a fabric to combat growth of disease-causing microbes, general bacteria, infectious diseases, and various targeted organisms.

### **Antimigrant**

*Dharmatrading.com*

A substance added to a dye to slow down its ability to spread or bleed into a fabric as it is applied. Some examples are Sodium Alginate and Superclear.

*list.emich.edu/~dyers/pdfs/dyeglossary.PDF*

an additive used in dye or pigment mixtures to prevent undesired movement or spreading of the wet dye on fabric. Anti-migrants are used in thickened dye solutions or dye pastes used for printing fabric so that the printed pattern will retain sharply defined edges. Sodium alginate is often used for this purpose for art processes. Antimigrants are also used in commercial pad-batch dyeing to prevent uneven shading across the width of the fabric.

### **Antimony oxide, Antimony trioxide, Antimony white**

*Whittington's Dictionary of Plastics, by James W. Carley*

$Sb_2O_3$ . A very fine white powder made by vapourising antimony metal in an oxidising atmosphere, then cooling and collecting the oxide dust. Available in several ranges of particle size, it is used as a flame retardant and pigment in plastics, usually in synergistic combination with an organo-halogen compound. PVC is the biggest consumer.

### **Antinodes**

#### **Trbusi stojnog vala**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Točke elastičnoga sredstva koje u stojnome valu titraju s najvećom amplitudom.**

### **Antinodal plane**

#### **Trbušna ravnina**

**Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015**  
**Ravnina koje povezuje sve točke na kojima se događa konstruktivna interferencija u trodimenzijskome prostoru.**

### **Antioxidant, Oxygen scavenger**

**Akceptor kisika, Antioksidacijsko sredstvo, Antioksidans, Sredstvo za sprječavanje oksidacije**  
*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

Any of various organic compounds that are added to materials such as paints, plastics, gasoline, rubber and food products in order to reduce the effect of oxidation and the accompanying degradation of properties.

*Borouge Polymer dictionary*

A group of substances being able to inhibit radical reactions in the polymer and thus prevent degradation processes. Different types are available: sterically hindered phenols and phosphites as base for polyolefins, sulphur based heat stabilisers and C-radical scavengers for special applications.

*Bloomerplastics.com*

An additive which inhibits the degradation and oxidation of material when exposed to ambient air during processing and subsequently in the end product form.

*Ca-bc.com/zip\_internacional/usedmach/education/*

A substance to retard deterioration (of fiber, fabrics, finishes, etc.) resulting from reaction with oxygen.

*composite.about.com/library/glossary/a/bldef-a371.htm*

Additive to prevent degradation of plastics from exposure to the atmosphere. Deterioration may be caused by heat, age, radiation, chemicals or physical stress. Compounds which prevent oxygen from reacting with other compounds that are susceptible to oxidation. They are often themselves oxidized in the process of protecting other compounds. There are two main classes of antioxidants: (1) Those that inhibit oxidation through reaction with chain-propagating radicals (radical or chain terminators), such as hindered phenols or secondary aryl amines which intercept either the R· or RO<sub>2</sub> free radicals. These also are referred to as primary antioxidants or free radical scavengers. (2) Those that decompose peroxide into nonradical and stable products such as esters of thiodipropionic acid. These also are referred to as secondary antioxidants, synergists, or peroxide decomposers.

*Elastoproxy.com*

Same as Age Register, a chemical used to retard deterioration specifically caused by oxygen. (Example, Age-Rite, Resin D)

*Glossary of Rubber and Rubber-like Materials, ASTM publication, Philadelphia 1956*

An organic substance which inhibits or retards oxidation and certain other kinds of ageing. Some antioxidants cause staining or discolouration on exposure to light and are used only in black or dark-coloured goods.

*huntsman.com/pu/Media/PU\_Brochures\_cwp\_glossary.pdf*

Additives that inhibit a polymer from chemically reacting with oxygen. An oxygen reaction usually results in chain scission and, therefore, possible cross-linking. Oxygen reactions can also produce volatile products that contribute to further combustion of the polymer. Antioxidants are particularly useful both at combustion control and at elevated temperatures where the oxygen-polymer reaction proceeds at an accelerated rate.

*Inda.org*

An additive that retards the deterioration of a material's functional and aesthetic properties

resulting from its reaction with the oxygen in air.

*Polimerni materijali, skripta*

Antioksidansi se dodaju radi usporavanja procesa razgradnje oksidacijom. Oksidacijom se smanjuje masa polimera i pogoršavaju fizikalna i kemijska svojstva polimernih materijala.

*Polymer science dictionary, by Mark. s.m. Alger, Google books*

An additive used to protect a polymer against oxydation by atmospheric oxygen. Hindered phenoles are mostly used in plastic materials, since they are non-staining. Preventive antioxidants are often peroxide decomposers and include many organosuplhur compounds, e.g. thio-bisphenols.

*Prerada plastike i gume, M.Erceg*

Antioksidanti su tvari koje usporavaju ili zaustavljaju oksidacijsku razgradnju polimera. Preko 90% antioksidansa koristi se za PE, PP, PS i ABS. Oksidacija je tipična radikalska reakcija a antioksidanti inhibiraju reakciju propagacije, odnosno deaktiviraju slobodne radikale.

Antioksidansi mogu biti primarni ili sekundarni. Primarni antioksidansi (inhibiraju reakciju propagacije) su sterički ometani fenoli i sterički ometani amini. Sekundarni antioksidansi (inhibiraju raspad hidroperoksida). To su tercijsarni fosfini i fosfiti.

*Processing and Finishing of Polymeric Materials, 2 Volume Set, by Wiley*

Polymers may become oxidised during melt processing and fabrication, and end-use resulting in loss of aesthetic and mechanical properties. This thermally induced autooxidation results in the formation of free radicals, which will react with oxygen to form hydroperoxides. These hydroperoxides are themselves thermally unstable, and their ensuing decomposition results in polymer chain scission, cross-linking and the formation of colour chromophores. The extent of these decomposition processes depends on the particular polymer and the exposure environment. In order to inhibit the initiation of polymer oxidation, and to retard resulting destructive chemical processes, antioxidants are added during the manufacture, processing and/or during fabrication of plastic articles. Traditional antioxidants are classified as either primary or secondary types. Primary antioxidants act by trapping free radicals, usually hydroperoxy radicals, through donation of a labile hydrogen to the radical species. Secondary antioxidants interfere with the propagation steps of autooxidation by decomposing hydroperoxides, to form stable, non-radical species. Use of antioxidants in plastics is ubiquitous, since nearly all polymer types require some form of stabilisation in order to provide useful and durable materials.

*Specialchem4coatings*

Compounding material used to retard deterioration of coating films caused by oxidation, heat exposure... Usually based on molecules that will scavenge free radicals as they are formed.

Different types are available: phenolic compounds, primary and secondary amines...

*specialchem4polymers.com/resources/glossary/index.aspx?id=A*

Compounding material used to retard deterioration caused by oxidation. Usually based on molecules that will scavenge free radicals as they are formed. Different types are available: sterically hindered phenols and phosphites as base for polyolefins, sulphur based heat stabilizers and C-radical scavengers for special applications.

*struna\_knj\_14\_strelementi\_04(1381).pdf – Foxit Reader*

**Aditiv koji sprečava, usporava ili ograničuje brzinu oksidacije maziva.**

*Struna – Hrvatsko strukovno nazivlje - Polimeri*

Tvar koja se dodaje materijalu radi sprečavanja oksidacijske razgradnje.

*Trendovi razvoja polimer, Marko Ivanišević, Zagreb 2011*

Antioksidansi se dodaju radi usporavanja procesa razgradnje oksidacijom. Oksidacijom se smanjuje masa polimera i pogoršavaju fizikalna i kemijska svojstva polimernih materijala.

## **Antiozonant**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

A substance that is added to rubber to inhibit or prevent the severe oxidising action of ozone on both natural and synthetic elastomers.

*composite.about.com/library/glossary/a/bldef-a372.htm*

Substance which prevents or slows down degradation of material due to ozone.

*Elastoproxy.com*

A chemical compounding material used specifically to retard deterioration caused by ozone.

(Example, Antozite II).

*Glossary of Rubber and Rubber-like Materials, ASTM publication, Philadelphia 1956*

A substance that retards or prevents the appearance of cracks in rubber and similar materials from the action of ozone, when they are exposed under tension, either statically or dynamically, to air containing ozone.

*Polymer science dictionary, by Mark. s.m. Alger, Google books*

An additive used to protect a polymer against the effects of ozone-induced degradation and hence used mainly in diene rubbers. Works either by providing a physical barrier to ozone penetration by forming a thin surface film of an ozone resisting wax or by chemically reacting with ozone or polymer ozonolysis products, as do aromatic diamines, such as *p*-phenylene-diamine derivatives.

*schools.look4.net.nz/science/chemistry/index/index\_html*

Substances that reverse or prevent severe oxidation by ozone. Antiozonants are added to rubber to prevent them from becoming brittle as atmospheric ozone reacts with them over time. Aromatic amines are often used as antiozonants.

*specialchem4polymers.com/resources/glossary/index.aspx?id=A*

Additive used to protect a polymer against the effects of ozone-induced degradation and hence used mainly in diene rubbers. Works either by providing a physical barrier to ozone penetration by forming a thin surface film of an ozone-resisting wax or by chemically reacting with ozone or polymer ozonolysis products, as do aromatic diamines such as *p*-phenylene diamine derivatives.

*Whittington's dictionary of plastics, by James F. Carley, Lloyd R. Whittington*

A substance added to elastomers to retard or prevent deterioration caused by exposure to air containing ozone.

#### **Antiparticle**

##### **Antičestica, Protučestica**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Čestica kojoj su masa i većina ostalih svojstava jednaka svojstvima neke subatomske čestice, ali je njezin električni naboj ili koje drugo karakteristično svojstvo suprotnoga predznaka.**

#### **Antiphase boundary (APB)**

##### **Protufazna granica, Antifazna granica**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Granica između protufaznoga područja i matičnoga kristala.**

#### **Antiphase domain (APD)**

##### **Antifazna domena, Protufazna domena, Protufazno područje**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Područje u kristalu u kojemu je atomsko uređenje suprotno onomu matičnoga kristala.**

#### **Antipill, Anti pill, Anti-pilling finish**

*Chemistry & Technology of Fabric Preparation & Finishing, by Dr. Charles Tomasino*

Pilling is a condition exhibited by certain fabrics made from spun yarns. Balls of lint are firmly attached to the fabric's surface and when the condition is severe, the fabric becomes visually unappealing and irritating to the touch. Spun fabrics made from

100% synthetic fibers, i.e. acrylics and polyesters, or blends of polyester/cotton are prone to pill. The pill in a polyester/ cotton blend is made up of twisted, loose fibers still attached to the parent yarn by one or more anchor fibers. Usually the anchor fibers are polyester filaments that have partially worked their way out of the spun yarn. Pill formation is a function of rubbing against the fabric so pills are mostly found in garment areas where rubbing is most prevalent, i.e. areas near pockets, collars and cuffs. The most common laboratory test method for predicting a fabric's pilling tendency is the Random Tumble Pill Rating method. Squares of fabric are tumbled against a cork lining in an accelerator for specified periods of time. The squares are visually rated against photographic standards, see table 1. The number and severity of pills still attached to the surface determine the pill rating. While the method has deficiencies, it will differentiate good fabrics from bad.

*Embroideryauthority*

A treatment applied to garments primarily to resist the formation of little balls on the fabric's surface due to abrasion during wear.

*fibre2fashion*

a finish applied to fleece which involves shearing the surface so that the fabric is less likely to pill.

*indiantextilejournal.com/articles/FAdetails.asp?id=614*

Pilling is greater problem in blend fabrics than in pure wool, because the high-strength synthetic fibres anchor the pills to the fabric surface, preventing their removal during wear. There is a number of processes to improve the pilling performance of woollen apparel fabrics, for example, the degradative anti-felting finish (chlorination), which improves the pilling behaviour of knitted fabrics.

*Library*

A finish applied to fleece which involves shearing the surface so that the fabric is less likely to pill

*Maprom.de*

finishing used on fabrics to avoid the tendency of the fibres coming off of the surface of the material. The fabric is usually treated with film-binding substances, which cause a rougher fibre surface reducing the gliding ability of the fibre or by spraying the fabric with a superficially working solvent to bend the fibre ends.

*Texsite*

reduces the forming of pills on fabrics and knitted products made from yarns with a synthetic-fibre content, which are inclined to pilling by their considerable strength, flexibility and resistance to impact. A-p. f. is based on the use of chemical treatments which aim to suppress the ability of fibres to slacken and also to reduce the mechanical resistance of synthetic fibre.

### **Antiplasticisation**

#### **Antiplastifikacija, Anriplastificiranje**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

The process of offsetting the decrease in modulus or tensile strength, or the increase of molecular mobility, in a polymer by adding a plasticiser.

### **Antiplasticiser**

#### **Antiplastifikator**

*Polymer science dictionary, by Mark S.M.Alger*

A plasticiser which causes the increase in the stiffness of a polymer when used in small amounts but which, when used in higher concentrations, acts normally as a plasticiser. This happens particularly in polyvinyl chloride for concentrations of plasticiser of up to about 15phr. Consequently, with this polymer plasticisers are generally not used below about 30 phr. Antiplasticisation has also been observed in nylons, polycarbonates and in polymethacrylate. Thus it is seen to occur in polymers with polar side groups and with relatively rigid chains. The mechanism is not fully understood, but obviously involves an increase in intermolecular forces between polymer chains via polymer/plasticiser interaction, possibly by increased ordering of the chains.

### **Antique finish**

*Alrashidmall*

A denim finish achieved through sanding and washing, which gives an aged look to the garment. Antique is also a type of ring denim in which the yarn is strongly uneven.

*Carpets & Rugs*

A modern chemical washing procedure that produces softer tones or antiques the rug. This is most common practice for Chinese, Indian and Pakistani rugs that change the colors of the rug to make it more marketable.

*sansiro.de/englisch/funktion/lexikon/*

A denim finish where the worn look has been created using sand jets and then the finished article has been washed. Antique is also a ring denim material with a distinctive, uneven warp yarn.

### **Antique grain, Antique finish, Antiquing**

*All-about-leather*

A special surface effect has been created to mimic the unique 'worn' appearance of traditional leathers. This is achieved by applying a contrasting top-coat which is applied unevenly or partially rubbed off to reveal a paler underlying colour.

*Designerhandbag101.com*

leather with a smooth finish because the grain has been crushed and undergone shrinkage.

*scribd.com/doc/706009/Manual-of-Leather-Garments*

The light application of one colour over another one (usually a darker over a lighter colour).

The purpose is to create highlights.

*shoebacca.com/resources/definitions/heel-seat.html*

Antiquing or distressed leather is a leather finishing process that creates a contrasting, rubbed-off appearance. The leather is usually dyed with either a darker color over the lighter one or a lighter one over a darker one. The darker over lighter is typically preferred. This process creates rich highlights in the leather that resemble an aged appearance. This look is very popular on shoes such as men's dress shoes and boots because it looks very authentic and interesting. The distressed leather look is also popular on cowboy boots.

*Stanford.edu*

A surface pattern on leather consisting of markings or creases, usually irregular, in which the hollows or valleys are given a contrasting color to produce a two-tone or two-color effect. The creases are produced either by EMBOSSING (1) or BOARDING (1) .

*Stuartsbagsglossary*

A surface pattern of markings or creases, usually irregular, in which the hollows are often given a contrasting colour to produce a two-tone or two-colour effect. The creases are produced by embossing, boarding or other similar means.

### **Antique satin**

*chezshazz dictionary*

A satin weave fabric with slubs. Called antique satin because it imitates 18th Century spun shantung silk. Used in draperies.

*eBay*

Antique satin is a reversible satin-weave fabric with satin floats on the technical face and surface slubs on the technical back created by using slub-filling yarns. It is usually used with the technical back as the right side for drapery fabrics and often made of a blend of fibers.

*fibrefashion*

a reversible fabric - one side looks like satin and the other side like shantung. It often has a dark warp which enhances the texture. Often used for draperies.

*Justfabric*

a sateen or horizontal satin drapery fabric with horizontal (weft) slubs which imitate spun shantung silk. It is typically composed of approximately 60% rayon (the face yarn fiber) and 40% acetate (the back yarn fiber). Most fabrics are one color from a selection of thousands. Occasionally the warp and weft yarns are dyed different colors to give an iridescent effect. Antique satin may also be printed. It is also suitable for bedspread fabric as it can be quilted.

*Library*

a reversible fabric - one side looks like satin and the other side like shantung. It often has a dark warp which enhances the texture. Often used for draperies.

*Milloutletfabric*

A widely used term for drapery and upholstery fabrics with a satin weave. It is available in many textures, fibers and weight.

*newcitycleaners*

This type of satin is created using slub (yarns with thick and thin areas) yarns in the filling direction.

*Wikipedia*

Antique satin refers to any 5 or 8 harness (shaft) satin weave that uses slubbed or unevenly spun yarns in the weft (filling). It is usually an upholstery-weight fabric and can be made using silk, rayon or acetate in the warp and coarser cotton or manmade fibers in the weft (filling). It is a satin-faced version of Shantung or Dupioni. The name refers to the fabric's handspun and hand woven appearance.

### **Antique taffeta**

*fibrefashion*

a stiff plain weave fabric, often iridescent, with a slubbed weft. May be of silk or synthetics.

*Hand Book of Silk Technology, by Tammanna N. Sonwalkar*

A stiff-finished fabric in plain weave, made to resemble fabrics of the 18th century. It may be made of dupion silk or synthetic fibres.

*Smartdecorating*

Close plain woven silk with horizontal slubs and a smooth crisp finish. This is just a common name for taffeta that has horizontal slubs - the term has nothing to do with the age of the fabric. Usually made from wild silk, but some newer fabrics are made from cotton or synthetics. Also referred to as "tussah silk", "pongee", or "dupioni silk". Available in a variety of colors.

### **Antique wash**

*Rugswearhouse*

A technique of aging colours by submerging the rug into a special chemical solution.

*virtual.yosemite.ca.us/fcs/MINTDS220/area\_rug\_glossary.pdf*

A chemical or natural process that tones down colors. designed to simulate aging. Also called

tea washing because the overall brown cast gives the effect of having dunked the whole rug in tea. It is one of a few post-production treatments used to alter the visual presentation of the yarn.

### **Antiqued leather, Antiqued finish**

*Alexvale.com*

Full grain leather that is generally hand rubbed with a pigment after the base coat has dried. It can be either dull or glazed.

*Irvingtanning*

Leather that is dyed with one color over another (usually darker over lighter) so as to create rich highlights and an artificial aged appearance. Also called distressed leather.

*littleathercare.net/glossary.asp*

Leather processed with a contrasting colour (usually darker) over a base colour on the surface to accentuate the natural grain or embossing. Pigments be applied by hand (rub-on or hand-wipe) or machine (spray effect) or rub-off (a process of coating then removing by hand to achieve the antique effect).

*Rodenleather*

Antiqued Leather is leather that is dyed with one color over another to create highlights and an aged appearance.

### **Anti-redeposition agent, Anti-soil redeposition agent**

*Answers.com*

An additive used in a detergent to help prevent soil from resettling on a fabric after it has been removed during washing.

*Enviro-solution.com*

An ingredient, usually carboxy-methyl-cellulose, incorporated into a laundry detergent to help prevent soil from resettling on clothes after it has been removed during washing.

*Globalspec*

An additive used in a detergent to help prevent soil from resettling on a fabric after it has been removed during washing.

*Scienceinthebox*

They help keep soils from redepositing onto clothing in the wash water after they have been removed. Anti-redeposition agents are water-soluble and typically are negatively charged.

The most commonly used anti-redeposition agent is carboxymethyl-cellulose (CMC).

Carboxymethylcellulose is a polymer derived from natural cellulose. Unlike cellulose, CMC is highly water-soluble. CMC is used in some of our laundry detergents at low levels (0.5-1%). It is a dispersion polymer and helps keeping soil dispersed in the wash water, thereby preventing it from re-depositing onto the fabrics being laundered.

*Textile fibers, dyes, finishes, and processes, by Howard L. Needles*

Soil removal is a dynamic process in which suspended soil may be redeposited on the textile, as well as removed during the laundering process. Addition of agents with appropriate soil-repellent functional groups inhibits such redeposition. Carboxymethyl cellulose is an inexpensive negatively charged water miscible polymer that forms a thin deposit or coating on the textile and repels the charged soil-detergent micelle. Other polar or charged water-miscible polymers such as polyvinylprollidone are particularly useful on synthetics as effective anti-soil redeposition agents and can be incorporated with carboxymethylcellulose to improve the overall effectiveness of anti-soil redeposition, particularly on synthetic-natural fibre blends.

*Texworld*



A substance which, when added to a wash liquor, prevents the redeposition of soil particles on clean or washed substrate.

### **Antiseptic**

*completenaturalblends.com/glossary*

A substance that destroys bacteria and prevents infection. Also helps to prevent tissue degeneration.

*Enviro-solution.com*

A substance which opposes sepsis (infection by pathogenic micro-organisms) and putrefaction, either by inhibiting growth or destroying micro-organisms.

### **Antiseptic finish, Bacteriostatic finish, Antibacterial finish**

*Cs.arizona.edu*

This chemical treatment is said to make a fabric bacteria-resistant, prevent decay and damage from perspiration. The treatment inhibits the growth of many bacteria, including odour-causing germs. The chemicals used are mostly quaternary ammonia compounds. Some are also claimed to be mildew-resistant. Some additives may be added to the spinning solution of rayon and acetate, rather than applying a chemical treatment to the surface of a finished fabric.

*ptj.com.pk/2008/04-08/April PDF 2008/Finishing - Art Noor.pdf*

This is a chemical treatment designed to make fabrics bacteria-resistant. It imparts a self-sterilizing quality to a fabric by inhibiting the growth of a broad spectrum of bacteria, including odour-causing germs. The chemicals used are usually surface reactants, thus the appearance and feel of the fabrics are unchanged and no chemical odour remains. Sanitized of Dyeing Printing Finishing Sanitized, Inc. is a familiar trade name in the market today for an antiseptic finish on fabrics and ready-to-wear clothing items.

### **Antishrink**

#### **Neskupljajući**

*HAND BOOK ON GLOSSARY OF TEXTILE TERMS, BUREAU OF INDIAN STANDARDS NEW DELHI 110 002, UDC 001.4/677 (021) ISBN 81-7061-009-5*

Descriptive of textile materials that are dimensionally stable under normal conditions of usage. However, in case of fabrics of yarns containing wool, the term anti-shrink or shrink-resistant denotes non-felting.

### **Antiskinning agent**

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

Any substance added to a material to prevent or retard the process of oxidation or polymerisation, which results in the formation of an insoluble skin on the surface of the material.

### **Antislip band**

*Texsite*

narrow textile fabric, in linen or twill weave, typically 25 mm wide and finished by means of longitudinal felling with an elastic thread with a non-slip face. Sewn into the waistbands of trousers and skirts.

### **Antislip finish**

*jpkc.cztgi.cn/swyy/kcwz\_tzzy/resources/013\_1.doc*

Smooth filament yarns may have a tendency to slide against one another, creating flawed<sup>46</sup> areas in a fabric or problem of seam<sup>47</sup> slippage. This is known as yarn slippage. Resins coated on the surface of these fabrics will keep the yarns in place, as the resin holds yarns together at the points where the yarns interlace<sup>48</sup>. Resin antislip finishes are durable.

### **Anti-soiling finish; Soil-resistant finish; Soil-repellent finish**

*scribd.com/doc/2384911/Encyclopedia-of-Textile-Finishing*

Finishes designed to achieve active stain blocking. The term is also used to describe various technical measures applied in finishing to keep soil away from textiles. Soil propensity is dependent of the fibre material, the technological structure of the yarn and fabric, as well as the finish. Crease-resistant finishes and water-repellent treatments increase soiling propensity. The man-made fibre producer's solution to the problem is to create a „clean fibre“, e.g. by the incorporation of additives into the spinning solution.

*silicates.com/leading-glossary.asp*

A substance or treatment usually applied to a fibrous surface that prevents or reduces pickup of dirt and soils.

*Texsite*

fabrics with this finish have the capacity to repel the dispersion of impurities and greasy dirt. The dirt adheres to the fabric surface in the form of small drops, which are easy to remove. The f. is applied by means of perfluoro greasy acids in combination with a hydrophobic agent and a melamine resin. Fabrics with an a. s. f. must be thoroughly rinsed after washing to ensure the removal of remnants of the washing agent.

### **Antisoiling properties**

*Ca-bc.com/zip\_internacional/usedmach/education/*

The properties of textile materials whereby they resist deposition of dirt and stains.

*Inda.org*

The ability of a textile to resist the deposition of dirt, making it easy to remove the dirt.

Antistaining is a similar ability for oil or waterbound stains.

### **Antistaining properties, Anti stain**

*Ca-bc.com/zip\_internacional/usedmach/education/*

The ability of a textile to resist the deposition of oil- or water-borne stains.

*mistral.be/en/tips-info/textile-abc*

Anti-stain usually refers to a treatment that makes fabrics water and dirt proof, and easy to care for. This treatment is an aftercare treatment and its resistant attribute is reduced after each wash. A popular product with such water and dirt proof attributes is Teflon.

### **Antistatic agent, Antistat**

**Antistatik, Antistatičko sredstvo, Sredstvo za zaštitu od statičkog elektriciteta**

*About.com*

A chemical added to a plastic part for the purpose of eliminating or lessening static electricity. Acts to permit the body or surface of the material to be slightly conductive preventing the formation of static charges and hindering the fixation of dust. The agent may be incorporated in the material before molding, or applied to the surface after molding and function either by being inherently conductive or by absorbing moisture from the air. Examples of antistatic additives are long-chain aliphatic amines and amides, phosphate esters, quaternary

ammonium salts, polyethylene glycols, polyethylene glycol esters, and ethoxylated long-chained aliphatic amines.

*Borouge Polymer dictionary*

Surface-modifying additives to reduce surface resistance of polyolefins, eliminating charge build-up and dust collection; an example of a widely used antistatic agent is glycerine-monostearate (GMS). Different types of antistatic agents are used in polymerisation reactors to prevent the formed polymer powder from adhering to the reactor wall.

*Ca-bc.com/zip\_internacional/usedmach/education/*

A reagent capable of preventing, reducing, or dissipating static electrical charges that may be produced on textile materials.

*Chemistry & Technology of Fabric Preparation & Finishing, by Dr. Charles Tomasino*

Increasing the conductivity of the textile fiber has been a highly successful way of increasing the rate of dissipation. A wide variety of antistatic finishes have been developed which function to increase the conductivity of the fiber. Nearly all of these materials rely on water as the medium to transport the charged species and therefore their usefulness is dependant on atmospheric humidity. They are very effective in moist atmospheres but their effectness decreases as relative humidity decreases. Common reagents include hydrophylic surfactants, poly-electrolytes, long chain quaternary ammonium salts, polyethoxylated polymers and any other hydroscopic material that can be left on the surface of the fiber. Most of these agents are not permanent since they may wash or wear away. Structure/property relationships will be discussed in sections to follow. Reagents of this nature are applied to fibers by kiss rolls, spray or immersion as they are being manufactured. They are can be applied to yarns and fabrics in similar fashions. Fabric softeners that also function as antistats can be exhausted from the rinse cycle of a dyeing procedure or padded on as an ingredient in the fabric finish formulation. Consumers can add similar types of agents in the rinse bath after the wash cycle during home laundering. Dryer - added softener sheets afford the same type of static protection.

*Emcoplastics.com*

Methods of minimizing static electricity in plastic materials. Such agents are of two basic types: (1) metallic devices which come into contact with the plastics and conduct the static to earth. Such devices give complete neutralization at the time, but because they do not modify the surface of the material it can become prone to further static during subsequent handling; (2) chemical additives which, mixed with the compound during processing, give a reasonable degree of protection to the finished products.

*Enviro-solution.com*

A chemical agent that reduces static electricity by preventing friction. Friction causes fabric (especially man-made fabrics such as nylon and polyester) to produce static electricity discharge. Used on carpets and other materials to eliminate static electricity.

*Fibreset*

Agents which, when added to the molding material or applied on the surface of the molded object, make it less conducting (thus hindering the fixation of dust).

*Inda.org*

An additive that reduces the accumulation or assists the dissipation of electrical charges that

arise during the processing of fibers, fabrics and films, and during the use of products.

*indiantextilejournal.com/articles/FAdetails.asp?id=614*

Static electricity tends to build up in wool/synthetic blends, due to their lack of moisture regain and conductivity. This can be reduced by antistatic agents, which form a thin layer of moisture and neutralise the static charge. Antistats can be durable or non-durable. Durable are polyamines, polyethoxylated amine, amonium salts and carboxylic salts. Non-durable antistats are quaternary amonium salts, phosphate esters and ethoxylated fatty acids.

*Polimerni materijali, skripta*

Antistatici se dodaju polimerinim materijalima jer im povećavaju električnu vodljivost površine zbog čega se ne stvara elektrostatički naboj. Prema primjeni mogu biti unutarnji i vanjski. Unutarnje treba homogenizirati polimernim materijalima nakon čega antistatici migriraju prema površini i tvore antistatičku zaštitu. Vanjski se nalaze izravno na površinskom sloju polimernog materijala i lako se uklanjaju, što im je najveći nedostatak.

*Polimerni materijali*

Antistatici sprečavaju nabijanje površine polimera statičkim elektricitetom.

*Polymer science dictionary, by Mark. s.m. Alger, Google books*

An additive used in polymers to dissipate accumulated static electric charge. Since polymers are good insulators, charges are produced by rubbing the polymer surface against another surface. Various problems may result from such charging: attraction of dust and other particles, unwanted discharge when touched, producing an electric shock or even a dangerous spark, attraction of a surface to other surfaces causing difficulty in handling – especially with films in packaging machinery. May be cationic, e.g. quaternary ammonium or phosphonium salts, anionic, e.g. alkylsulphonates or sulphates, phosphates or carboxylates, or non-ionic, e.g. polyethylene glycole esters, fatty acid ethers, or ethanole-amines, glycerines, or ethoxylated fatty amines.

*Prerada plastike i gume, M.Erceg*

Polimerni materijali pokazuju izrazitu sklonost stvaranju elektrostatičkog naboja zbog slabe električne provodnosti. Negativni naboj imaju PVC, PS, PE i PTFE, a pozitivan naboj poliesteri, CA, PVDC, omekšani PVC, PF, PA i ojačani poliesteri. Nastanak elektrostatičkog naboja sprječava se dodatkom antistatika. Antistatici su a) ion-vodljivi: amini, amonijeve soli, amidi, N-heterociklički spojevi, b) elektron-vodljivi: metali, čađa, grafit. Dodaju se u količinama od 2-4 mas. % i smanjuju prozirnost polimera.

*Struna – Hrvatsko strukovno nazivlje - Polimeri*

Tvar koja se dodaje materijalu ili se nanosi na površinu proizvoda da bi spriječila stvaranje statičkoga elektriciteta.

*Technical centre*

Can be either a fiber or fabric that does not allow the build-up of static electricity to occur when the fiber or fabric experiences friction or rubbing.

*Tintoriavago.com*

Product eliminating static energy caused by friction. It is applied during the dye baths of synthetic fibres, more subject to building up static energy; water absorbent fibres do not have this problem.

*Wikipedia*

An antistatic agent is a compound used for treatment of materials or their surfaces in order to reduce or eliminate buildup of static electricity generally caused by the triboelectric effect. Its role is to make the surface or the material itself slightly conductive, either by being conductive itself, or by absorbing moisture from the air, so some humectants can be used. The molecules of an antistatic agent often have both hydrophilic and hydrophobic areas, similar to those of a surfactant; the hydrophobic side interacts with the surface of the material, while the hydrophilic side interacts with the air moisture and binds the water molecules. Internal antistatic agents are designed to be mixed directly into the material, external antistatic agents are applied to the surface. Common antistatic agents are based on long-chain aliphatic amines

(optionally ethoxylated) and amides, quaternary ammonium salts (e.g., behentrimonium chloride or cocamidopropyl betaine), esters of phosphoric acid, polyethylene glycol esters, or polyols. Indium tin oxide can be used as transparent antistatic coating of windows. Conductive polymers are another option. PEDOT:PSS is used by H.C. Starck (a former Bayer company) as an antistatic coating under name "BAYTRON P" in several applications, eg. in some Agfa photographic films. Antistatic agents are also added to some military jet fuels, to impart electrical conductivity to them and avoid buildup of static charge that could lead to sparking igniting the fuel vapors. Stadis 450, with dinonylnaphthylsulfonic acid (DINNSA) as the active ingredient, is the agent added to some distillate fuels, solvents, commercial jet fuels, and to the military JP-8 fuel. Stadis 425 is a similar compound, for use in distillate fuels and solvents.

### **Antistatic bi-component**

*Staticworx*

a type of yarn commonly found in most commercial and household carpets. The term bi-component refers to the co-extrusion of two materials within the same yarn strand. The internal cross-section of the yarn contains carbon while the surrounding fibers are composed of standard insulative nylon. The bi-component yarn provides an overall reduction in static generation—not a path to ground. Because the outer nylon insulates the internal conductive element, bi-component yarns do not discharge or conduct static electricity. Bi-component yarns cannot be grounded and are not suitable for static control in areas where computers are used.

### **Antistatic carpet**

*staticsmart.com/esd-static-control-articles/esd\_flooring\_glossary.php*

The term antistatic refers to a condition where static generation is inhibited during contact and separation with a different material. In general, antistatic carpet is any carpet product that will generate less static electricity than standard carpet. Antistatic carpet is not conductive and it is not possible to ground anti-static carpet. Antistatic carpet usually contains bi-component yarns. The reason for specifying antistatic carpet is to establish a space that will be free of static shocks, or zaps. Most new antistatic carpet will prevent shocks as long as the relative humidity (RH) is above 25%. Anti static carpet should NOT be confused with conductive or ESD carpet. Antistatic is not a permanent property.

### **Antistatic finish, Antistatic treatment**

*Britannica*

The accumulation of static electricity in such synthetic fibres as nylon, polyesters, and acrylics produces clinging, which may be reduced by application of permanent antistatic agents during processing. Consumers can partially reduce static electricity by adding commercial fabric softeners during laundering.

*Cs.arizona.edu*

This is a chemical treatment applied to a fabric to prevent the accumulation of static electricity. The synthetic fibres tend to generate static electricity. When static electricity is accumulated, a fabric clings to the body or another garment. An antistatic finish adds a water-attracting chemical to the fabric. This helps to carry off the electric charges. Some of these finishes are removed in dry cleaning. This may leave a harsh feel to the fabric.

*Handbook of technical textiles Edited by A R Horrocks and S C Anand*

Static electricity is formed when two dissimilar materials are rubbed together. It cannot be formed if identical materials are rubbed together. Thus when dissimilar materials are rubbed together a separation of charges occurs and one of the materials becomes positively charged

and the other negatively charged. The actual sign of the charge depends on the nature of the two materials that are taking part and this may be deduced from the triboelectric series, shown in Table 7.3. The materials at the top of the table will derive a positive charge when rubbed with any of the materials below them.<sup>17</sup> Cotton is a fibre that has very good antistatic properties on its own and presents few problems. This is because the natural water content of cotton is high (moisture contents of around 8% are commonly quoted), which provides the fibre with sufficient conductivity to dissipate any charge that might accumulate. However, with the advent of synthetic fibres, which had a low water content and were sufficiently nonconductive to hold a static charge on the surface, severe static problems began to arise. Thus some synthetics, particularly polyesters, can sustain such a high charge density on the surface that it can actually ionise the air in the vicinity giving rise to a spark, which discharges the static that has been built up. In most cases this results in a mild shock to the person experiencing this static discharge, but where explosive gases might be present it can result in disaster. Antistatic treatments, therefore, are based on the principle of making the fibre conductive so that high charge densities are dissipated before sparks can form. This is done by the application of both anionic and cationic agents to the fibre. Typical structures of these materials are similar to the softening agents used for cotton, which contain a long chain hydrocarbon with an ionic group at the end. One of the most interesting advances in the field of antistatic treatments has been the development of the permanent antistatic finishes, one of which was the Permolose finish developed by ICI. These are actually a series of finishes that consist of block copolymers of ethylene oxide and a polyester. When polyester fibres are treated with Permolose, the polyester block of the copolymer is adsorbed by the polyester fibre but the polyethylene oxide portion is incompatible with the polyester fibre and thus remains on the surface, where it attracts water and forms a conductive surface on the polyester fibre.

*[jpkc.cztgi.cn/swyy/kcwz\\_tzzy/resources/013\\_1.doc](http://jpkc.cztgi.cn/swyy/kcwz_tzzy/resources/013_1.doc)*

Static electricity is formed when two dissimilar materials are rubbed together. Antistatic treatments are based on the principle of making the fibre conductive<sup>42</sup> so that high charge densities<sup>43</sup> are dissipated<sup>44</sup> before sparks can form. This is done by the application of both anionic and cationic agents to the fibres. These agents attract water and form a conductive surface on the synthetic fibres.

*[p2pays.org/ref/13/12194.pdf](http://p2pays.org/ref/13/12194.pdf)*

The process consists in treating the fabric with hygroscopic substances (antistatic agents) which increase the electrical conductivity of the fibre, thus avoid the accumulation of electrostatic charge. These finishing treatments are very common for synthetic fibres, but they are also applied to wool in the carpet sector for floorcoverings that have to be used in static-sensitive environments.

*Texsite*

Used for the removal in synthetic fibres of the unwanted effects of electrostatic charge produced during production and wear of fabrics and knits. Electrostatic charge causes an undesirable adhesive power and a resultant shabbiness. A. f. is applied by means of an antistatic chemical treatment, the effect of which may be temporary or permanent.

### **Antistatic properties**

*antron carpet and fibres*

Resisting the tendency to produce annoying static electric shocks in situations where friction of the foot tread builds up static in low-humidity conditions. Some nylon fibers introduce a conductive filament in the yarn bundle to conduct or dissipate static charges from the human body. Olefin fiber is inherently static-resistant, as it is similar to the surface of most shoe soles (only dissimilar surfaces rub to create a static charge). There are two basic methods for controlling the buildup of static in nylon carpets:

1. Treating the carpet with a topical spray. This is not permanent and creates a tendency for the carpet surface to soil.

2. Adding a carbon composite nylon filament into the bundle of yarn to act as a dissipating rod carrying the static charge away from the person generating it.

*Ca-bc.com/zip\_internacional/usedmach/education/*

The ability of a textile material to disperse an electrostatic charge and to prevent the build up of static electricity.

*Carpet-rug*

The ability of a carpet system to dissipate an electrostatic charge before it reaches the threshold of human sensitivity.

*Encyclopedic Dictionary of Polymers, Volume 1, edited by Jan W. Gooch*

The ability of a textile material to disperse an electronic charge and to prevent the build up of static electricity.

*Pojmovnik, Ekspert trgovina – za sigurnost i vještačenje*

Svojsvo proizvoda koji sprečava ili ograničava stvaranje statičkog elektriciteta. Često je nužna u industrijskim pogonima, jer nudi dobar kompromis kada su prisutni rizici od električnog pražnjenja i strujnog udara. Antistatički se proizvodi koriste u sredinama izloženima riziku od eksplozije, kao što su kemijska postrojenja, rafi nerije, tvornice streljiva ili rudnici. Dosta se koristi i za zaštitu materijala osjetljivih na električno pražnjenje, kao kod proizvodnje elektroničke opreme ili montaže poluvodiča. Koristi se i u uvjetima kontrolirane atmosfere, kao u lakirnicama automobila, radi izbjegavanja širenja i taloženja nepoželjnih čestica na boju karoserije.

*Staticworx*

Resisting the tendency to produce annoying static electric shocks in situations where friction of the foot tread builds up static in low-humidity conditions. Some nylon fibers introduce a conductive filament in the yarn bundle to conduct or dissipate static charges from the human body. Olefin fiber is inherently static-resistant, as it is similar to the surface of most shoe soles (only dissimilar surfaces rub to create a static charge). There are two basic methods for controlling the buildup of static in nylon carpets: (1) Treating the carpet with a topical spray. This is not permanent and creates a tendency for the carpet surface to soil. (2) Adding a carbon composite nylon filament into the bundle of yarn to act as a dissipating rod carrying the static charge away from the person generating it.

### **Anti-static rugs**

*Rugwarehouse*

A special treatment applied to rugs to reduce static electricity build up. Most machine made rugs are anti-static.

### **Antistick**

*Staffgasket.com*

a coating or surface treatment that prevents a material from adhering to it.

### **Antitack**

*vidi*

### **Antiblocking agent**

### **Antivirus software**

#### **Protuvirusni programski paket**

*ISACA® Glossary of Terms English - Slovenian*

An application software deployed at multiple points in an IT architecture. It is designed to detect and potentially eliminate virus code before damage is done and repair or quarantine files that have already been infected.

### **Antiwear agent, Wear inhibitor**

#### **Sredstvo protiv habanja, Sredstvo protiv trošenja**

*struna\_knj\_14\_strelementi\_04(1381).pdf – Foxit Reader*

**Aditiv koji sprečava ili smanjuje brzinu ili jačinu trošenja površina u relativnome gibanju.**

### **Anti-wicking**

*Amefid Glossary of textile terms*

Refers to a finish (Quarapel) put on the thread to minimize wicking. The wrapper on cotton wrapped, core threads or 100% cotton threads will sometimes swell after being sewn into the seam to minimize water migration. Polyester wrapped core threads are also used with very small needle sizes to minimize the size of the hole made in the fabric.

### **Antiwrinkling agent**

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

Material added to surface coating compositions to prevent the formation of wrinkles in the coat during drying.

### **Antron, Antron® nylon**

*antron carpet and fibres*

The most specified brand of commercial carpet fiber. Antron® nylon combines a superior Type 6,6 polymer substrate, fiber engineering, DuraTech® advanced soil resistance technology, and INVISTA performance testing and construction standards, resulting in carpet fibers that perform well in the most demanding commercial environments.

*chezchazz textile*

Dupont's brand of nylon.

*Library*

brand of nylon fiber trademarked by the Du Pont Co.

### **Anvil**

#### **Nakovanj**

*Environmental Engineering Dictionary, edited by C. C. Lee*

In hot wedge seaming of FMLs (flexible membrane liners for containing solids, liquid and vapour matter of landfill waste), an anvil is the wedge of metal above and below which the sheets (generally, high density polyethylene materials) to be joined must pass. The temperature controllers and thermocouples of most hot wedge devices are located within the anvil.

### **AOX**

*caemi glossary*

Absorbable organic halogens. AOX is a sum parameter measuring total concentration of chlorine bound to organic compounds in waste water. AOX measures all chlorine compounds both harmful and harmless (a sum parameter).

*Paper machinery*

A measure of the amount of chlorine that is chemically bound to the soluble organic matter in the effluent.

*us.hessnatur.com/shop/glossary.action;jsessionid?letter=a*

AOX (Adsorbable organically bound halogens) is a value that measures all absorbable organohalogenic compounds in the wastewater. Industrial and commercial production operations can channel organohalogenic compounds into the wastewater. For example, they can be a by-product from the manufacture of plant protection agents or cellulose bleaching. Many of them are toxic and must be removed from the water.

**Apex**

*vidi*

**Vertex**



### **Aperture**

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

(1) A slit, gap, hole or some other opening. (2) A circular variable opening in an optical instrument that controls the radiation entering the instrument.

### **Apertured nonwoven**

*patentstorm.us/patents/6632504/description.html*

Apertured nonwoven webs of thermoplastic polymers are often used in the manufacture of disposable absorbent articles, including wipes, garments, and hygiene products. One typical use is as a topsheet in diapers, feminine hygiene products, incontinence garments, and the like. The topsheet is provided as a surface layer on these articles that is intended to be placed against the wearer's skin. Body fluids pass through the apertures in the topsheet into the fluid management and retention layers below.

*Whittington's dictionary of plastics, by James F. Carley, Lloyd R. Whittington*

A nonwoven fabric having many small through-holes made by laying the fabric on perforated plate or screen and applying fluid pressure.

### **Apparel**

*sewingweb.com/dictionary/*

General term used to describe garments made by a person who sews.

*Texworld*

Personal outfit, garments, clothing or attire, including headwear and footwear.

Note: This definition includes all apparel even if made of non-fibrous materials. Some dictionaries imply the inclusion of other, non-clothing habiliments and attached or carried accessories such as jewellery, handbags or walking sticks within the definition of apparel.

### **Apparel textiles**

#### **Tekstil za odjeću**

*Hanbook of textile desing, by Jacquie Wilson*

The clothing or apparel market includes most garments that are worn. A huge consumer of fabric, clothing manufacture can be split by market, e.g. men's, women's and children's clothing, sportswear, casual wear or formal wear. However, not all fabrics for garments are considered part of the apparel market. Fabrics such as the specialised protective clothing for fire-fighters, pilots and those in similar hazardous occupations are considered part of the industrial textiles market, and specialist clothing for leisure and ski wear, etc. are considered as being consumer textiles.

### **Apparent**

#### **Prividan**

*Naftni rječnik – Perić*

(1) Veličina dobivena mjerenjem, na primjer, prividna brzina (apparent velocity). (2) Vrijednost svojstva (parametra) pod pretpostavkom homogenosti i izotropnosti sredine i polubeskonačnosti prostora, za razliku od njegove stvarne vrijednosti.

### **Apparent area of contact**

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

In tribology, the area of contact between two solid surfaces defined by the boundaries of their macroscopic interface.

### **Apparent colour**

*dev.mlciredesign.hodgsonconsult.net/Students/Page.aspx?id=1*

The amount of "color" in a lake refers to the concentration of natural dissolved organic acids such as tannins and lignins, which give the water a tea color. Tannins and lignin's usually come from aquatic plants that live in the lake or in the drainage to the lake. They are not considered harmful. Apparent color is measured by comparing an unfiltered water sample to Standard Platinum Units (SPU).

*doe.virginia.gov/VDOE/watershed/glossary/index.html*

the color given to water by dissolved substances and suspended matter (e.g., metallic ions, plankton, algae, industrial pollution, and plant pigments). Apparent color provides useful information about the water's source and content.

*encyclopedia2.thefreedictionary.com/Complementary+colors*

Color is a property of light that depends on wavelength. When light falls on an object, some of it is absorbed and some is reflected. The apparent color of an opaque object depends on the wavelength of the light that it reflects; e.g., a red object observed in daylight appears red because it reflects only the waves producing red light. The color of a transparent object is determined by the wavelength of the light transmitted by it. An opaque object that reflects all wavelengths appears white; one that absorbs all wavelengths appears black. Black and white are not generally considered true colors; black is said to result from the absence of color, and white from the presence of all colors mixed together.

*photonics.com/directory/dictionary/lookup.asp?url=lookup&entrynum=3824&letter=p*

The apparent color, as seen by the human eye, as distinguished from color as a measurable property of light.

**Apparent density**

*vidi*

**Bulk density**

**Apparent depth**

**Prividna dubina**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Udaljenost slike predmeta od površine tekućine koja je manja od stvarne udaljenosti predmeta od površine tekućine.**

**Apparent melting point**

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

The temperature at which a plastic changes in appearance from opaque to transparent (see – Melting point).

**Apparent porosity**

*Dictionary of Ceramic Science and Engineering, By Ian McColm*

The ratio of the open pore space of a body to its bulk volume, expressed in percent.

**Apparent power**

**Prividna snaga**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Umnožak efektivne vrijednosti napona i efektivne vrijednosti struje u krugu izmjenične struje.**

**SIMBOL:  $P_p$**

**Apparent proof**

*Encyclopedic Dictionary of Polymers, Volume 1* edited by Jan W. Gooch

The proof of a liquid as calculated from its specific gravity at 60 °F. It is equivalent to the proof of a solution of pure alcohol and water having the same specific gravity at 60/60 °F and the mixture

in question. Since materials other than alcohol and water, such as denaturants or other soluble ingredients, affect the specific gravity of the solution, the apparent proof is not necessarily the true “alcohol proof” of the solution.

### **Apparent shear rate**

*polydynamics.com/glossary2.htm*

The shear rate determined in capillary viscometers without making a correction (Rabinowitsch) for shear thinning. It turns out that the apparent shear rate is equal to  $4Q/p R^3$  where Q is the volumetric flow rate (m<sup>3</sup>/s) and R is the radius (m) of the capillary.

### **Apparent solid volume**

#### **Prividni volumen krutine**

*Dictionary of Ceramic Science and Engineering, By Ian McColm*

The total volume occupied by a body, including open and sealed pores.

### **Apparent specific gravity**

*Dictionary of Ceramic Science and Engineering, By Ian McColm*

The ratio of the weight of a unit volume of a body to an equal volume of water at the same temperature, also known as apparent density.

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

The specific gravity of a porous solid when the volume used in the calculation is considered to exclude permeable voids (see – Specific gravity).

### **Apparent viscosity**

*Encyclopedic Dictionary of Polymers, Volume 1 edited by Jan W. Gooch*

At any point in the fluid undergoing laminar shear, the nominal shear stress, divided by apparent shear rate. In simple fluids, viscosity is a state property, depending only on composition, temperature and pressure. In polymer melts and solutions, it is, nearly always, also dependent on the shear rate (or stress), hence the term apparent viscosity. The term is also applied to the quotient of the shear rate at the wall.

*Encyclopedic Dictionary of Polymers, Volume 1 edited by Jan W. Gooch*

The quantity obtained by dividing the shearing force by the rate of shear. This is a term applied only to non-Newtonian materials. It is not a constant for a given material, because its value depends on the rate of shear selected in making the measurement. Apparent viscosity is obtained by “one - point” methods. It has no general scientific value, and it is doubtful whether it has any real technical value.

#### *Fluidlife*

the observed viscosity of a non-Newtonian fluid (viscosity changes with shear rate) measured at a specific shear rate and temperature.

#### *Naftni rječnik – Perić*

(1) v. effective viscosity; (2) Viskoznost fluida izmjerena viskozimetrom pri specificiranoj brzini smicanja. Ovisi o plastičnoj viskozности i naprežanju pri pokretanju (granici tečenja fluida) i jednaka je polovici vrijednosti viskozности izmjerene pri brzini 600 o/min (u centipoazima). Za njutonske fluide prividna viskoznost je brojčano jednaka plastičnoj viskozности.

#### *Oilfieldglossary*

The viscosity of a fluid measured at a given shear rate at a fixed temperature. In order for a viscosity measurement to be meaningful, the shear rate must be stated or defined.

*polydynamics.com/glossary2.htm*

The viscosity determined in capillary viscometry without making a correction (Rabinowitsch) for shear thinning. The apparent viscosity is equal to the shear stress divided by the apparent

shear rate, which is  $\left(\frac{\Delta P}{2L}R\right) / \frac{4Q}{\pi R^3}$ , where DP is the pressure drop (Pa), Q is the volumetric flow rate (m<sup>3</sup>/s), L is the length (m) and R is the radius (m) of the capillary die.

*Synlube*

The ratio of shear stress to rate of shear of a non-Newtonian fluid such as lubricating grease, or a multi-grade oil, calculated from Poiseuille's equation and measured in poises. The apparent viscosity changes with changing rates of shear and temperature and must, therefore, be reported as the value at a given shear rate and temperature

*Texacoursa*

The ratio of shear stress to rate of shear of a non-Newtonian fluid such as lubricating grease, calculated from Poiseuille's equation and measured in poises. The apparent viscosity changes with changing rates of shear and temperature and must therefore, be reported as the value at a given shear rate and temperature

*Wikipedia*

a rheological property calculated from rheometer readings performed by a Mud engineer on drilling fluid. It is normally abbreviated as AV. It is expressed in cP (Centipoise). Centipoise is the amount of force required to move one layer of fluid in relation to another. One centipoise is equal to one hundredth of a poise.

### **Apparent volume**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

The difference between the volume of a solution composed of dissolved matter in a pure solvent and the volume of the pure solvent.

### **Apparent wall thickness**

*fibre2fashion*

the apparent width of a fibre wall as seen under the microscope. In the maturity test for cotton, the apparent wall thickness is assessed visually at the widest part of the fibres as a fraction of the maximum ribbon width.

*mijnwoordenboek.nl/EN/theme/BA/EN/NL/A/4*

the apparent width of the fibre wall as seen when fibres are examined under the microscope

### **Appearance**

*Castleing.com*

The nature of objects as visual attributes, such as size, shape, color, texture, glossiness, transparency and opacity.

*coloraccuracy.com/default.*

Manifestation of the nature of objects and materials through visual attributes such as size, shape, color, texture, glossiness, transparency, opacity, etc.

### **Appearance energy**

**Zamjetljiva energija**

IUPAC . Category: Final, Mass Spectrometry Terms, 2013

Minimum energy that must be imparted to an atom or molecule to produce a detectable amount of a specified ion. In electron ionization mass spectrometry, minimum electron energy necessary for the detection of a given fragment ion. Note: This experimental quantity can vary with the detection sensitivity of the instrument used, reflecting different kinetic shifts.

### **Appearance rating**

### *Textilbol*

Term applies to the smoothness of fabrics – usually wash and wear or durable press – after washing and tumbling drying. Industry has adopted standard test methods for rating appearance.

### **Appearance retention**

*blissflooring.com/bliss/about/warranties/information/~//media/Files/Technical Support Information/claims/Defining apperance retention PDF.ashx*

In siple terms, apperance retention could be defined best as carpet's ability to remain aesthetically pleasing throughout its expected lifecycle. Various mechanical walk-simulators, designed to subject a carpet to repeated compressional and torsional loads, are often used to determine the cummulative change in the apperance of the carpet between trafficked carpet and non-trafficked carpet, as well as to determine probability level of expected appearance retention of a new carpet with use. Furthermore, these tests eliminate influence factors, such as soiling, which are beyond the control of the manufacturer.

*eaglemat.net/images/wp/carpet-glossary.pdf*

A carpet's ability to retain an acceptable appearance throughout its expected life cycle. Appearance retention is directly related to matching the carpet to end use.

### **Appliance cables**

**Kablovi uredaja**

### *Technical Textile Terms Glossary \_ American & Efird*

Power cables used in appliances to carry low to medium voltage. These cables generally have a braided jacket that is made from Polyester. In some special applications, appliance cables can also have braided jackets made from special fibers like glass, DuPont™ Nomex®, Nylon, etc. Also, many appliance cables are hermetically sealed. These cable are also used for instrumentation in the aviation industry. (DuPont™ and Nomex® are registered Trademarks of E.I. du Pont de Nemours and Company and are used under license to A&E®.)

### **Application**

**Aplikacija**

*vidi* **Coating**

*ISACA® Glossary of Terms English - Slovenian*

A computer program or set of programs that performs the processing of records for a specific function. Scope Note: Contrasts with systems programs, such as an operating system or network control program, and with utility programs, such as copy or sort.

### **Application programme**

**Aplikacijski program**

*ISACA® Glossary of Terms English - Slovenian*

A program that processes business data through activities such as data entry, update or query Scope Note: It contrasts with systems programs, such as an operating system or network control program, and with utility programs such as copy or sort.

### **Application rate**

**Brzina nanošenja**

*Glossary of Paint and Coatings Terminology, M. Pavlič, Ljubljana 2002.*

The quantity of the coating material that is required to produce, under defined working conditions, a dry film of given thickness or unit area (e.g. 1/m<sup>2</sup> or kg/m<sup>2</sup>).

### **Application security**

**Aplikacijska sigurnost**

*ISACA® Glossary of Terms English - Slovenian*

Refers to the security aspects supported by the application, primarily with regard to the roles or responsibilities and audit trails within the applications.

### **Application system**

**Aplikacijski sustav**

*ISACA® Glossary of Terms English - Slovenian*

An integrated set of computer programs designed to serve a particular function that has specific input, processing and output activities. Scope Note: Examples include general ledger, manufacturing resource planning and human resource (HR) management.

### **Application weight**

#### **Težina nanešenog materijala**

*Glossary of Paint and Coatings Terminology, M. Pavlič, Ljubljana 2002.*

The quantity of wet coating applied on the substrate, usually expressed as g/m<sup>2</sup>).

### **Applicator**

*Encyclopedic Dictionary of Polymers, Volume 1 edited by Jan W. Gooch*

Device to deposit a film of a specified thickness, such as doctor blade, wire wound rod, drwdown bar, or roll.

### **Appliqué**

*Amefid embroidery terms*

1) Decoration or trimming cut from one piece of fabric and stitched to another, usually with a satin stitch, to add dimension and texture. If the appliqué occupies a significant amount of the design, the stitch count can be reduced. 2) In Schiffli embroidery, an embroidered motif is usually cut away from the base fabric and then stitched onto the finished product.

*antique vintage dictionary*

decorative technique where fabric shapes are sewn or embroidered onto a base fabric

*Beloved linens*

A. Term used to describe a method of working lace in which the pattern is made separately and sewn on a net ground when completed. B. A class of embroidery in which the pattern is cut out of one material and sewn on (applied) a ground of another, or on one of the same material but contrasting in colour.

*Britannica*

sewing technique in which fabric patches are layered on a foundation fabric, then stitched in place by hand or machine with the raw edges turned under or covered with decorative stitching. From the French appliquer, "to put on," appliqué is sometimes used to embellish clothing or household linens. Like patchwork (piecing), it is a method of constructing or embellishing quilts.

*Ca-bc.com/zip\_internacional/usedmach/education/*

A design made separately and then sewn on a cloth or garment.

*Ceca fabric glossary*

material that is cut and sewn, embroidered or otherwise secured to a fabric. There are four main types of appliqué: straight stitch, satin stitch, decorative stitch, and central fix

*chezchazz textile*

Decorations sewn onto fabric or added to an existing surface.

*Crystalsfabric dictionary*

Applique is a technique in which cut-out pieces of fabric or textile decorations are added to fabric to create designs. Applique adds dimension and texture to fabric.

*Dry goods*

In modern dress and upholstery this term signifies applied or sewed on. Thus, the gimp or pattern of soiled lace may be sewed upon a new ground, or embroidered flowers may be secured to new silk; in such case the pattern or ornament is said to be applique, and the whole applique work. More generally, said of one material fixed upon another in ornamental work. Point Applique is point lace, in which the design, after having been separately made, has been applied to the net which forms the foundation.

*Embroideryguild.com*

Decoration or trimming cut from one piece of fabric and stitched to another, usually with a satin stitch around the edge. Adds dimension and/or texture to a design.

*Encyclopedic Dictionary of Polymers, Volume 1 edited by Jan W. Gooch*

Pattern or picture, formed by laying various materials, usually on fabric ground. Especially suitable for dressmaking and needlework. A design or ornament applied to another surface.

*indian fabrics*

A cutout decoration fastened to a larger piece of material.

*Policepatch.biz*

A separate, pre-cut piece of fabric that is decorated (or decorated and then cut), and applied to another piece of fabric, typically a garment. Appliqués are frequently used to reduce overall embroidery stitch counts, execute reproductions of which embroidery is impractical and decorate substrates difficult to embroider directly.

*quiltblockofthemonthclub.com/glossary.php*

Appliqué is a needlework technique in which pieces of fabric, embroidery, or other materials are sewn onto a bottom piece of fabric to create designs. Commonly, Appliquéd pieces may have their edges folded under and be slip-stitched in place - known as Needleturn appliqué, or they may be glued or fused on first and the neat edges sewn to the bottom fabric by a machine satin stitch, or by a hand, or machine Blanket stitch.

*TheSewingDictionary.com - Your Sewing Dictionary and Glossary On the Web*

Sewing a piece of fabric atop another after folding under a small bit of the fabric to create a clean edge. When done by machine, many use a satin stitch (tight zig zag). By hand, blind stitching is often used.

*Vintagetableclothclub.com*

A cloth ornamentation that is laid upon and applied, usually via small stitches, to another textile medium

*Wikipedia*

In its broadest sense, an applique or appliqué is a smaller ornament or device applied to another surface. In the context of ceramics, for example, an appliqué is a separate piece of clay added to the primary work, generally for the purpose of decoration.

In the context of sewing, applique refers a needlework technique in which pieces of fabric, embroidery, or other materials are sewn onto another piece of fabric to create designs.[1] It is particularly suitable for work which is to be seen from a distance, such as in banner-making.

A famous example of applique is the Hastings Embroidery.

Appliqued cloth is an important art form in Benin, West Africa, particularly in the area around Abomey, where it has been a tradition since the 18th century and the kingdom of Danhomè.

Applique is used extensively in quilting. "Dresden Plate" and "Sunbonnet Sue" are two examples of traditional American quilt blocks that are constructed with both patchwork and applique. Baltimore album quilts, Broderie perse, Hawaiian quilts, Amish quilts and the ralli quilts of India and Pakistan also use applique.

*Wisegeek*

Appliqué is a crafting technique in which pieces of material are mounted to another base material. It is often used in quilting to create bright and distinctive designs, and it may also be used to dress up clothing, or make unusual placemats and potholders. Appliqué is a very old art form, and examples of appliqué which are hundreds of years old can be seen in museums all over the world. It is also very easy to learn appliqué, although it can take a long time to become a master of the art.

The word comes from the French *appliquer*, which means "to apply." To create appliqué, artists start with a base, which may consist of a solid piece of fabric or many pieces sewn together, as in the case of a quilt. Shapes are cut from other textiles and sewn or glued onto the base; it is also possible to make appliqué with ribbons, cords, sequins, beads, and other

materials. Depending on whether the appliquéd design is ornamental or functional, the applied material may be firmly attached or more loosely glued or sewn.

#### **Approximation**

#### **Apksimacija**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Opisivanje procesa ili pojave pojednostavljenim modelom.**

#### **Apron**

##### *Apparelsearch*

An apron is an outer protective garment that covers primarily the front of the body. It may be worn for hygienic reasons as well as in order to protect clothes from wear and tear. The apron is commonly part of the uniform of several work categories, including waitresses, nurses, housewives and domestic staff. It is also worn as a decorative garment by women. There are many different apron styles depending on the purpose of the apron.

##### *Dry goods*

The apron dates far back. Ever since over first parents ages and ages ago sewed fig leaves into aprons to conceal their nakedness, this style of garment has been a la mode. The Greeks and Romans were famous for their richly embroidered aprons. In the time of Queen Charlotte of England, Beau Brummel showed his dislike to them by deliberately removing the apron of a duchess and flinging it behind a sofa at a ball; and Mary, Queen of Scots, history asserts, left behind her when she was beheaded nearly one hundred aprons of various hues and fashions. An English illustration made in the 13th century shows a blacksmith at work in an apron similar in shape to that still worn by men of that class. At that time they were known under the name of "barm-skins." The exact origin of the word apron is unsettled, although it is supposed to be derived from the French naperon, a large cloth, whence also our word napkin, a small cloth. We call them by many names now, the fig leaves of Adam and Eve having developed by slow degrees into a valuable series of pin-a-fores, suitable for the infant in arms, or the man and woman to whom labor is the natural result having come into existence.

##### *Fashion encyclopedia*

Aprons and safeguards were two garments women used to protect their elaborate gowns. An apron was a panel of fabric worn at the front of a skirt, while a safeguard was a full outer skirt meant to protect the wearer from the weather. The garments were endlessly flexible in their form and their quality, allowing them to be worn by all classes of women. For the poorest women, who might only have one nice skirt, an apron was worn to protect the skirts while working. A crude apron might be made of plain wool or cotton. Wealthy women wore aprons more for decoration than for protection. Their aprons could be made of luxurious fabrics like silk or velvet, and their patterns were chosen to complement the skirt. Fancy aprons were trimmed out in decorative lace and might be embroidered with intricate patterns. Aprons attached at the waist with a tie. Safeguards were generally worn by wealthy women seeking to protect their expensive gowns. While these outer skirts were worn for protection, a stylish woman would have her safeguard made to match her outfit.

##### *Glimakrausa.com*

The canvas or cord which is attached to the cloth and warp beams and which is long enough to reach the shafts. The a pron has a wooden bar or metal rod for attaching the warp threads.

##### *Probertencyclopedia*

An apron is an article of dress, usually of cloth or leather, worn on the fore part of the body to protect the clothes worn under it from dirt and damage. Typically an apron is tied at the waist and ranges from the delicate, flowery cloth aprons worn by 1950's housewives to keep cooking ingredients from their dress to the heavy-duty leather apron worn by a blacksmith.

##### *Wikipedia*



An apron is an outer protective garment that covers primarily the front of the body. It may be worn for hygienic reasons as well as in order to protect clothes from wear and tear. The apron is commonly part of the uniform of several work categories, including waitresses, nurses, and domestic workers. Many homemakers also wear them. It is also worn as a decorative garment by women. Aprons are also worn in many commercial establishments to protect workers clothes from damage, mainly bib aprons, but also others such as farrier aprons.

In addition to cloth, aprons can be made from a variety of materials. Rubber aprons are commonly used by persons working with dangerous chemicals, and lead aprons are commonly worn by persons such as X-ray technicians who work near radiation. Aprons, such as those used by carpenters, may have many pockets to hold tools. Waterproof household aprons, made of oilcloth or PVC are suitable for cooking and washing dishes.

The word apron is from the metanalysis of the term "a napron" as "an apron". The original spelling of napron has been lost.

### **Apron checks**

*Beloved linens*

Coarse, stiff, checked gingham fabric. Any color with white. Use: aprons. Width, 26", 27".

*resil.com/c.htm*

A cotton gingham A cotton gingham made in simple check patterns of an equal number of white and colour threads, alternating both in warp and weft. Used for aprons

### **Apron conveyor**

*Ian J.McColm: Dictionary of Ceramic Science and Engineering, III Edition*

A conveyor consisting of a series of metal or wood plates mounted at right angles on an endless chain to transfer materials or products from one location to another.

### **Apron dress**

*Apparesearch*

An apron dress is a sleeveless dress with a design that in some way is reminiscent of an apron. For instance, it may be held in place with waist bands, or have a bib front like an apron.

*Canadadigital.com*

An apron dress is a sleeveless dress with a design that in some way is reminiscent of an apron. For instance, it may be held in place with waist bands, or have a bib front like an apron.

*Textilbol*

A jumper dress or simply jumper (British English: pinafore dress, pinafore, pinny), is a sleeveless, collarless dress intended to be worn over a blouse or sweater. There is sometimes confusion over the name, as in British English, a jumper is a woollen sweater. An apron dress is a sleeveless dress with a design that in some way is reminiscent of an apron. For instance, it may be held in place with waist bands, or have a bib front like an apron.

*Wikipedia*

The apron dress may be viewed as a special case of the jumper dress. Typically, if the design of the dress is directly inspired by an apron (having a bib in front and ties in the back, for example), the garment is described as an apron dress.[1]

The Viking Apron Dress (admittedly a construction based on conjecture from the Hedeby fragments), is of a design that is in line with a standard jumper dress. The name was probably chosen as the dress was sometimes worn on top of a sleeved dress.

### **Apron feeder**

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

A modification of an apron conveyor designed to feed pulverised material to a process or packaging unit at a controlled rate.

### **Apron leather**

*healsfang.com/infoleatherterms\_a.html*

Leather for protective aprons for smiths, foundry workers, draymen, etc.

Note: Vegetable or chrome tanned, stout, large sheep and pigskins, kips and cattle hide splits.  
*leatherchemists.org/dictionary.asp*

Any one of several varieties of leather used in connection with textile machinery and blacksmith aprons. Comber and Gill Box apron leather is soft, mellow, tough leather, tanned from steer hide, heavily stuffed and boarded or otherwise softened. Rub Roll apron leather is a flexible but firm, dry, strong leather.

*The American Leather Chemist Association Dictionary*

Any one of several varieties of leather used in connection with textile machinery and blacksmith aprons. Comber and Gill Box apron leather is soft, mellow, tough leather, tanned from steer hide, heavily stuffed and boarded or otherwise softened. Rub Roll apron leather is a flexible but firm, dry, strong leather.

*Worldwidematerials.com*

Any one of several varieties of leather used in connection with textile machinery and blacksmith aprons. Comber and Gill Box Apron leather is soft, mellow, tough leather, tanned from steer hide, heavily stuffed and boarded or otherwise softened. Rub roll apron leather is a flexible but firm, dry, strong leather.

### **Aprotic solvent**

*chemiplus.net/dic/aprotic (solvent) definition-13241BE/*

Non-protogenic (in a given situation). (With extremely strong Brønsted acids or bases, solvents that are normally aprotic may accept or lose a proton. For example, acetonitrile is in most instances an aprotic solvent, but it is protophilic in the presence of concentrated sulfuric acid and protogenic in the presence of potassium tert-butoxide. Similar considerations apply to benzene, trichloromethane, etc.)

*chemistry.umeche.maine.edu/CHY251/Terms6.html*

a solvent that has no OH groups and therefore cannot donate a hydrogen bond (note that an OH group is NOT a hydroxide ion; the OH group is covalently bound into a molecule)

*dictionary.babylon.com/aprotic solvent*

A solvent that does not act as an acid or as a base; aprotic solvents don't undergo autoprotolysis. Examples are pentane, pet ether, and toluene.

*Whittington's dictionary of plastics, by James F. Carley, Lloyd R. Whittington*

An organic solvent that neither donates protons nor accepts them from a substance dissolved in it. Benzene, C<sub>6</sub>H<sub>6</sub>, is such a solvent.

### **Aqua merino**

*merid.org/nano/commoditiesworkshop/files/Comm\_Dev\_and\_Nano\_FINAL.pdf*

Aqua Merino garments are treated with a finishing that enhances the hydrophilic properties of the fabric, allowing wool to be worn in warm weather.

*Merinoinnovation.com*

Highly hydrophilic finish applied to wool, usually knitted products to provide a cool touch and system of moisture management.

### **Aqueous**

*Chem.ubc.ca*

A solution in which the solvent is water. Example: an aqueous solution of sodium hydroxide would be NaOH(aq).

*Naftni rječnik – Perić*

(1) Koji se sastoji od vode ili se odnosi na vodu. (2) Koji je nastao od vode ili s vodom ili pomoću vode – na primjer, vodena otopina (aqueous solution). (3) Koji je stvoren djelovanjem vode – na primjer, vodeni talog (aqueous sediment).

### **Aqueous cleaning**

*etfinancial.com/solventgloss.htm*

Cleaning parts with water to which may be added suitable detergents, saponifiers, or other additives.

*miscellaneous.techdictionary.org/s/Aqueous\_Cleaning*

A cleaning technique that uses water as the primary cleaning fluid.

### **Aqueous extract**

*Texworld*

Liquid obtained from the immersion of a textile specimen in water under prescribed conditions.

### **Aqueous lubricant**

**Emulzijsko mazivo, Vodenasto mazivo**

*struna\_knj\_14\_strelementi\_04(1381).pdf – Foxit Reader*

**Mazivo koje sadržava 10 % ili više vode. Vodenasto mazivo upotrebljava se kao sredstvo za hlađenje pri strojnoj obradbi metala.**

### **Aqueous scouring**

*Chemistry & Technology of Fabric Preparation & Finishing, by Dr. Charles Tomasino*

Aqueous scouring is the preferred way of scouring fabrics because water is nonflammable, non-toxic, plentiful and cheap. When preparing woven goods, the scouring step follows desizing and wet fabric proceed to the scouring range without drying in between. The components in the scouring bath must be selected with the fiber in mind. For example strong alkali can be used for scouring cotton, but wool and rayon are damaged by it. Wool can withstand acids whereas cotton, rayon and nylon cannot.

### **Arabesque, Eslimi**

*Artlandia Glossary of Pattern Design*

An elaborate ornamental design of intertwined curvilinear floral or geometric motifs. Commonly comes from (or inspired by) Islamic art or architecture.

*Carpets & Rugs*

An ornate linear design of intertwined floral and geometrical figures.

*galleryfurniture.com/manual.*

This term is used to describe a rug whereby the design is ornate in its linear nature - sometimes a breathtaking blend of intertwined floral and geometric figures. In some cases, the Arabesque pattern can reflect floral intertwine patterns or repeating animals as well as geometric figures.

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

An ornate type or style of decoration consisting of flowers, foliage, animal and figures, applied in different manners and using different techniques, so as to produce intricate patterns of interlaced lines.

*navajorugrepair.com/orientalterms.htm*

An ornate curving design of intertwined floral and vine figures often seen in intricate workshop rugs such as those from Isphahan, Tabriz, Nain and Qum.

*oldcarpet.com/visibility.htm*

This plant-like curved pattern has probably found its way into the Persian art from the Arabic art. The Persian word for Arabesque (Eslimi) has probably been derived from the word Eslimi meaning bud. It may possibly be a variation of the word Eslam that stands for the religion of Islam. One of the most famous types of this pattern is the Dahan Azhdari found in abundance in the Bijar carpet. In this form, the ending part of each branch is divided into two parts that resemble the jaws of a dragon.

*Rugwarehouse*

An Islamic art technique where repeated geometric forms are used to form a pattern of intertwining shapes. While these shapes are often abstract they are often used to form a pattern of plants, flowers, or branches.

*The rugs*

An elaborate motif of interlaced branches, leaves or flowers; can be woven in geometric or curvilinear pattern.

*Wikipedia*

The arabesque is an elaborative application of repeating geometric forms that often echo the forms of plants and animals. Arabesques are an element of Islamic art usually found decorating the walls of mosques. The choice of which geometric forms are to be used and how they are to be formatted is based upon the Islamic view of the world. To Muslims, these forms, taken together, constitute an infinite pattern that extends beyond the visible material world. To many in the Islamic world, they in fact symbolize the infinite, and therefore uncentralized, nature of the creation of the one God (Allah). Furthermore, the Islamic Arabesque artist conveys a definite spirituality without the iconography of Christian art.

### **Arabian crepe**

*ebooksread.com/authors-eng/louis-harmuth/dictionary-of-textiles-hci/1-dictionary-of-textiles-hci.shtml*

Silk crepe dyed in the piece and embroidered with dots.

*Future textiles*

A plain cloth composed of hard twisted cotton, silk, or worsted warp and weft. It is ornamented with extra weft. Cotton Arabian Crepe is made of 24s cotton crepe warp and weft with 40 ends and 36 picks per inch; ornamentation is done with s12s soft spun cotton yarn.

### **Arabian lace**

*Dictionaryoftext00*

Heavy, ecru colored lace, made of cords knotted together in intricate patterns; used for curtains.

*Texmachinery*

Écru-coloured piece-lace, corded in a darker shade. Used for curtains.

### **Arachne machine, Arachne loom**

*Britannica*

A Czechoslovakian Arachne stitch-bonding machine achieves high production rates with low pile costs, employing a fibrous web stitched on the knitting principle with yarns drawn from

beams. A German Malipol machine uses knitting principles to bind pile to a backing fabric, although a later model uses unknitted weft threads instead of backing. The Arachne machine, the best known unit for stitch bonding, operates much like a warp-knitting machine. Fibrous web is fed into the machine, and stitches are made by a series of needles placed about eight millimetres apart, giving the web longitudinal strength; lateral strength is provided by the fibre interactions.

*Ca-bc.com/zip\_internacional/usedmach/education/*

A machine for producing loop-bonded nonwovens. The fabric is formed by knitting a series of warp yarns through a fiber web processed on a card. (Also see BONDING, 2. Stitch Bonding.)

*Encyclopedic Dictionary of Polymers, Volume 1, edited by Jan W. Gooch*

(1) A machine for producing loop-bonded nonwovens. The fabric is formed by knitting a series of warp yarns through a fibre web, processed on a card. (2) Stitch bonding.

*Inda.org*

A machine that stitchbonds a nonwoven using a knitting stitch.

*Mijnwoordenboek*

this machine operates by stitching seams in loose-fibre fabric and so produce a consolidated sheet of textile material used as filtering material, carpet underlay, etc.

### **Aramid, Aramid fibre**

*Amefid Glossary of textile terms*

Includes DuPont™ fibers like Kevlar® and Nomex®, which exhibit excellent flammability characteristics and will not melt or support combustion. DuPont™ Nomex® has better long-term heat resistance but is weaker than polyester threads and stretches easily. DuPont™ Kevlar® is very strong and had good short-term heat resistance but should not be recommended where the thread will be subjected to prolonged exposure to high temperatures. (DuPont™, Kevlar® and Nomex® are registered Trademarks of E.I. du Pont de Nemours and Company and are used under license to A&E®.) Trade names - Nomex, Conex, Kevlar, Technora, Twaron.

*Azom*

Aramid fibre is a man-made organic polymer (an aromatic polyamide) produced by spinning a solid fibre from a liquid chemical blend. The bright golden yellow filaments produced can have a range of properties, but all have high strength and low density giving very high specific strength. All grades have good resistance to impact, and lower modulus grades are used extensively in ballistic applications. Compressive strength, however, is only similar to that of E-glass. Although most commonly known under its Dupont trade name 'Kevlar', there are now a number of suppliers of the fibre, most notably Akzo Nobel with 'Twaron'. Each supplier offers several grades of aramid with various combinations of modulus and surface finish to suit various applications. As well as the high strength properties, the fibres also offer good resistance to abrasion, and chemical and thermal degradation. However, the fibre can degrade slowly when exposed to ultraviolet light. Aramid fibres are usually available in the form of rovings, with texes ranging from about 20 to 800. Typically the price of the high modulus type ranges from £15-to £25 per kg.

*Bisfa.org*

Fibre composed of linear macromolecules made up of aromatic groups joined by amide or imide linkages, at least 85% of the amide or imide linkages being joined directly to two aromatic rings and the number of imide linkage, if the latter are present, not exceeding the number of aramide linkages.

*Ca-bc.com/zip\_internacional/usedmach/education/*

A manufactured fiber in which the fiber-forming material is a long chain synthetic polyamide having at least 85% of its amide linkages (-NH-CO-) attached directly to two aromatic rings (FTC definition).

Aramid fibers exhibit low flammability, high strength, and high modulus. Fabrics made from aramid fibers maintain their integrity at high temperatures, such fabrics are used extensively in hot-air filters. Aramids are also found in protective clothing, ropes and cables, and tire cord.

#### *Designingsite*

Aramid fibres are known for their large hardness and resistance to penetration. Thanks to their toughness aramid fibres are used where high impenetrability is required, e.g. bulletproof vests, bike tyres, airplanes wings, and sport equipment.

These fibres are not as spread as glass or carbon fibres, mostly because of their cost, high water absorption, and their difficult post-processing.

They are produced from PPTA . Immersed in a strong acid at -50 C, PPTA forms liquid crystals. The liquid is pulled through a nozzle at 200 C: the acid evaporates and the crystals get oriented. Finally, the fibres are stretch out at 500 C.

*Encyclopedic Dictionary of Polymers, Volume 1 edited by Jan W. Gooch*

Any of a family of high strength, high modulus fibres made from aramid resin. DuPont's Kevlar is the best known. Strength per density is higher for these fibres than for any other, except some whiskers. Fabrics made from aramid fibres maintain their integrity at high temperatures. These fabrics are used extensively in hot-air filters. Aramids are also found in protective clothing, ropes and cables, and tyre cord.

#### *fibre2fashion*

a term used to describe fibres composed of synthetic linear macromolecules having in the chain recurring amide groups, at least 85% of which are joined directly by two aromatic rings and in which amide groups may be substituted for up to 50% of the amide groups.

*poslovni-savjetnik.com/propisi/tehnicki-zahtjevi-za-proizvode-i-ocjena-sukladnosti/pravilnik-o-sirovinskom-sastavu-i-nazivi*

Vlakno sastavljeno od sintetskih linearnih makromolekula koje su sastavljene od aromatskih skupina povezanih amidnim ili imidnim vezama od kojih je najmanje 85% neposredno vezano na dva aromatska prstena. Ako su prisutne i imidne veze njihov broj ne prelazi broj amidnih veza

*resil.com/c.htm*

A manufactured fibre in which the fibre-forming substance is a long chain synthetic aromatic polyamide in which at least 85 % of the amide linkages are attached directly to two aromatic rings.

#### *Teampuma*

the generic name for fibres composed of synthetic linear macromolecules that have in the chain recurring amide groups, at least 85% of which are joined directly to two aromatic rings and in which imide groups may be substituted for up to 50% of the amide groups.

#### *Technical centre*

A manufactured fiber in which the fiber-forming substance is a long chain of synthetic polyamide in which at least 85% of the amide linkages are attached directly to two aromatic rings. Aramid fabrics are very strong and are resistant to high temperatures and extreme external forces. Aramid fabrics are used in thermally protective clothing; (i.e. coveralls, jackets, gloves, shirts, pants). U.S. FTC Definition: A manufactured fiber in which the fiber-forming substance is a long-chain synthetic polyamide in that is at least 85% of the amide linkages are attached directly to two aromatic rings.

#### *Wikipedia*

Aramid fibers are a class of heat-resistant and strong synthetic fibers. They are used in aerospace and military applications, for ballistic rated body armor fabric, and as an asbestos

substitute. The name is a shortened form of "aromatic polyamide". They are fibers in which the chain molecules are highly oriented along the fiber axis, so the strength of the chemical bond can be exploited.

### **Aramid fabrics**

*cstsales.com/aramid.html*

Aramid fibers are typically gold in color and require very sharp shears for cutting. Kevlar is DuPont's trade name for aramid. The best applications are where toughness is desired. Aramid is difficult to sand and is adversely affected by UV light so it is often buried under fiberglass or other material.

*/materials.globalspec.com/LearnMore/Materials\_Chemicals\_Adhesives/Composites\_Textiles\_Reinforcements/Aramid\_Fiber\_Aramid\_Fabrics*

Aramid fibers and aramid fabrics consists of bulk, chopped fibers, continuous strands or woven cloth forms of aromatic polyamide thermoplastic for reinforcing polymer matrix composites and other applications. A textile fabric made of aramid fibers is typically flame resistant and strong even at elevated temperatures. Aramid is made from an aromatic polymer that has a carbon-based backbone. Aramid fibers and aramid fabrics are created by spinning a solid fiber from the liquid polymer using a device called a spinneret. Aramid fibers and aramid fabrics are frequently used in fire and flame resistant clothing, protective equipment such as vests and helmets for firefighters, asbestos mitigation equipment, hot air filtration, reinforcement of rubber goods such as tires, ropes and cables, and sailcloth. Aramid fabric can also be treated with resins or epoxies to make polymer matrix composites. These composites combine the strength of the aramid fibers with the resin to create an industrial textile that is strong, easily molded into complex shapes, and abrasion and impact resistant. These composites are frequently used in transportation applications, including the building of boats and aircraft.

*resil.com/c.htm*

Fabrics made from aramid fibres are expensive, comfortable to wear and serves for a very long time. Used mainly for protective clothing worn by jet fighter pilots, tank crews and other military personnel, racing car drivers, and for space suits and certain industrial uses.

Fabrics made from a special type of aramid fibre, which is petroleum based, are very light, flame resistant and self extinguishing, and at the same time, has extremely high strength, tenacity, low thermal conductivity, exceptional resistance to cuts, punctures and abrasions. Used for ballistic protective jackets (bullet proof vests), gloves, aprons and overalls.

### **Aramid filament yarns**

#### **Aramidne filamentne prede**

*Handbook of technical textiles Edited by A R Horrocks and S C Anand*

Aramid fibre is a chemical fibre in which the fibre-forming substance is a long chain synthetic polyamide where at least 85% of the amide linkages are attached directly to two aromatic rings. Nomex and Kevlar are two well-known trade names of the aramid fibre, owned by Du Pont. Aramid fibres have high tenacity and high resistance to stretch, to most chemicals and to high temperature. The Kevlar aramid is well known for its relatively light weight and for its fatigue and damage resistance. Because of these properties, Kevlar 29 is widely used and accepted for making body armour. Kevlar 49, on the other hand, has high tenacity and is used as reinforcing material for many composite uses, including materials for making boat and aircraft parts. The Nomex aramid, on the other hand, is heat resistant and is used in making fire fighters' apparel and similar applications. Aramid yarns are more flexible than their other high performance counterparts such as glass and Kevlar, and thus are easier to use in subsequent fabric making processes, be it weaving, knitting, or braiding. Care should be

taken, though, as aramid yarns are much stronger and much more extensible than the conventional textile yarns, which could make the fabric formation process more difficult.

## **Aran**

*About.com*

Aran knitting originated in the Aran islands off the coast of Ireland. It is characterized by intricately patterned sweaters that involve lots of cables, bobbles and other designs. It is thought that the women of the islands began to knit these sweaters in the early 1900s, both to clothe their families and to sell to tourists. They are traditionally made from wool, which makes them warm even when wet. The first patterns for Aran sweaters were published in the 1940s, and they have been popular ever since. One of the major misconceptions about Aran sweaters is that they were originally knit for the fishermen and that each family used a unique stitch pattern so that bodies of loved ones could be identified if they washed onto shore. Hand-knit sweaters from the Aran islands can still be purchased, and knitters from all over the world use the techniques of Aran knitting to make their own fabulous and warm sweaters, throws and other knitted items.

*Dynetwork*

Aran knitting (sometimes referred to as fisherman knitting) is thought by many to be an ancient form of family identification, but it actually had its beginnings among the inhabitants of the Aran Islands in the early 20th century. While most often associated with sweaters, this technique of working combinations of stitches and patterns in a solid color (usually white) can also be used to beautiful effect in an afghan. On today's episode of *Knitty Gritty*, Vickie Howell's guest is Janet Szabo, the editor of *Twists and Turns* newsletter and an authority on Aran knitting.

*Merinoinnovation.com*

Style of cabled knitwear traditionally made and worn by fishermen from the Aran Isles off Galway, Ireland.

*Probertencyclopeadia*

Aran is a style of knitting associated with the people of the Aran Islands. It is characterised by hand-spun wool in a natural off-white colour which is knitted in cables, twists and bobbles into a centre front and two side panels giving an embossed effect. The true Aran knitting uses wool which retains its natural oils to aid waterproofing, and was used for fishermen's pullovers.

## **Arbitration**

### **Arbitraža**

*Englesko-engleski glosar poslovnih termina, finansija i nekretnina, T.Popović*

Using an independent third party to settle disputes without going to court. The third party acting as arbitrator must be agreed by both sides. Contracts often include arbitration clauses nominating an arbitrator in advance.

## **Arc**

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

Luminous discharge of electricity through a gas. Characterised by a change, approximately equal to the ionisation potential of the gas, in the space potential in the immediate vicinity of the negatively charged electrode.

## **Arc of contact**

### **Obuhvatni kut**

*struna\_knj\_14\_strelementi\_04(1381).pdf – Foxit Reader*



**Kut dijela remenice koji je obavijen remenom. Duljinu remena treba tako odabrati da je obuhvatni kut dovoljno velik i da sama zatezna remenica dovoljno jako zakrene remen.**

### **Arc resistance, Track resistance**

*ASM materials engineering dictionary, by Joseph R. Davis*

Ability to withstand exposure to an electric voltage. The total time in seconds that an intermittent arc may play across a plastic surface without rendering the surface conductive.

*composite.about.com/library/glossary/a/bldef-a406.htm*

The ability of a material to resist the action of a high voltage electrical arc, usually stated in terms of the time required to render the material electrically conductive. Failure of the specimen may be caused by heating to incandescence, burning, tracking or carbonization of the surface. Breakdown between two electrodes usually occurs as a conducting path is burned on the surface of the dielectric material.

*Encyclopedic Dictionary of Polymers, Volume 1 edited by Jan W. Gooch*

The ability of a plastic material to maintain low conductivity along the path of exposure to a high-voltage electrical arc, usually stated in terms of the time required to render the material electrically conductive. Failure of the specimen may be caused by heating to incandescence, burning, tracking, or carbonisation of the surface.

*Glossary of Rubber and Rubber-like Materials, ASTM publication, Philadelphia 1956*

The resistance of a material to an electric arc. In making the test, point electrodes are placed on two points of the same surface, and an arc is then passed between the electrodes. As the current is increased, the material eventually breaks down and the arc travels on its surface.

*Processes, by Charles A. Harper, Google books*

The time required for a given electric current to render the surface of a material conductive because of carbonisation by the arc flame. When an electric current is allowed to travel across an insulator's surface, the surface will degrade over time and become conductive. Arc resistance is a measure of the time, in seconds, required to make an insulating surface

conductive under a high-voltage, low-current and under specific conditions. *Polymer science Polymer science dictionary, by Mark. s.m. Alger, Google books*

The time (in s) that the surface of a material may be exposed to an electrical arc before a breakdown occurs. Test methods involve placing a specimen between electrodes and generating a high voltage / low current arcs at specified intervals. *Plastics Materials and rtpcompany.com/info/data/definitions.htm*

Time required for an electrical current to render the surface of a material conductive due to carbonization by the arc flame.

*Whittington's dictionary of plastics, by James F. Carley, Lloyd R. Whittington*

The ability of a plastic material to maintain low conductivity along the path of exposure to high-voltage electric arc, usually stated in terms of the time required to render the material electrically conductive. Failure of the specimen may be caused by heating to incandescence, burning, tracking or carbonisation of the surface.

### **Arc welding, Electric arc welding**

#### **Elektrolučno zavarivanje, Lučno zavarivanje**

*struna\_knj\_14\_strelementi\_04(1381).pdf – Foxit Reader*

**Zavarivanje pri kojemu se kao izvor topline za lokalno taljenje upotrebljava energija električnoga luka. Elektrolučno zavarivanje jedan je od najčešće upotrebljanih načina zavarivanja u praksi.**

### **Arch**

*Shoesmitten.com*

The high, curved part of the sole of the foot, located between the ball of the foot and the heel. This term can also refer to the raised area of the insole of a shoe, which is meant to pad and provide support for the arch of the foot.

*Wikipedia.org*

The arches of the foot are formed by the tarsal and metatarsal bones, and strengthened by ligaments and tendons, allow the foot to support the weight of the body in the erect posture with the least weight.

**Archetype** *vidi* **Prototype**

### **Archimedes' principle**

#### **Arhimedov zakon**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Zakon koji s pomoću uzgona objašnjava plivanje tijela na površini fluida. Iz Arhimedova zakona proizlazi da je omjer obujma uronjenoga dijela tijela i obujma cijeloga tijela jednak omjeru prosječne gustoće tijela i gustoće fluida. Zastarjeli iskaz Arhimedova zakona glasi: tijelo uronjeno u tekućinu prividno gubi na težini onoliko koliko je težina istisnutoga dijela tekućine.**

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

A body immersed in a liquid undergoes an apparent loss in mass equal to the mass of the fluid it has displaced.

### **Architecture**

#### **Arhitektura**

*ISACA® Glossary of Terms English - Slovenian*

Description of the fundamental underlying design of the components of the business system, or of one element of the business system (e.g., technology), the relationships among them, and the manner in which they support enterprise objectives.

### **Arctics**

#### *Dry goods*

A heavy variety of rubber overshoes, distinguished by having a cloth top which buckles up over the ankles, rubber heels and soles, and a nappy wool lining. [See Rubbers, India Rubber] *thefreedictionary.com/Arctics*

a waterproof overshoe that protects shoes from water or snow.

### **Ardabil rug**

#### *Carpets & Rugs*

The city of ARDABIL (ARDEBIL) is located at distance of 639 kilometers from TEHRAN. Ardabil is also well known for probably the most famous carpet in the world, this rug was approximately made around 1539. The original Ardabil rug was acquired by the Victoria Albert's museum in 1893 for a bargain \$4000 (an outrageous price for this period). The caratouche tells us that it was made by the order of the Persian King Shah Tahmasp by a weaver named Masuod al Kashani. A second much smaller rug is to be found in the Los Angeles County Museum of Art. This second rug is believed to have been used as a source of repair for the original.

#### *Oriental rugs*

This historic region of Iran, as well as Turkey and Uzbekistan, have had the most significant influence on the development of the present-day carpet industry. Their bold style of weaving originates partly from Mongols who invaded Iran in the 13th century, settling there in the north-west. In these rugged mountains these tough nomads of both sexes have the talent and skill to weave dramatic, high-quality carpets by hand, with no use of modern technology whatever. In many cases, rug weaving is the family's main source of income. They trade their produce with local merchants in nearby cities for the staples and necessities of life. A few of

the regions and towns included in this region are Ardabil, Bakhshaish, Gharadjeh (Gharabagh), Goravan, Heriz, Mehriban, Sarab, and Shahsavan. Weavers of these regions usually use their own symmetrical Turkish double-knotting style, which tends to be dense and tightly packed. The asymmetrical Persian knot can also be seen in cities such as Ardabil. The pile of these rugs is thick, lustrous wool, handspun from local sheep, with strong cotton as the material of choice for the foundation. However, wool and goat hair can also be seen as the base of some Turkish tribal rugs. In a few regions such as Ardabil, silk is blended in with the wool pile to produce a splendid carpet. Natural vegetable and root dyes are mainly used for the coloring. These rugs are among the most sturdy and hardwearing, still using the weaving techniques employed thousands of years ago.

### *Rug Rag*

One of the oldest and largest Persian rugs in existence is known as the "Ardebil Carpet" (sometimes spelled ardabil) which is currently on display in the Victoria and Albert Museum in London. Since the mid-1600's when this rug is believed to have been woven, Ardebil carpets now carry somewhat of a different place in the Oriental Rug market.

Ardebil rugs and carpets are often made of wool woven on a cotton foundation, often sheered fairly thin. Colors used are often bold, those of which would include red, white and royal blue. Ardebil rugs are usually constructed with a fairly tight knot count, and integrate many different colors into the design. Overall, the designs which are used tend to be more on the geometric side. Often design elements which are included may feature snakes, peacocks, roosters, or some other woven interpretation of such animals. Ardebil rugs often are found in sizes less than 7'x10'.

### *Wikipedia*

Ardabil rugs originate from Ardabil, located in the province of Ardabil Province in northwestern Iran, 639 kilometers from Tehran. Ardabil has a long and illustrious history of Persian carpet weaving. The reign of the Safavid Dynasty in the 16th and 17th centuries represented the peak of Persian carpet making in the region. The name Ardabil comes from the Avesta (The sacred book of Zoroastrians) with the word Artavil literally meaning a tall holy place. The weavers in Ardabil ply their craft using Persian knots. One of the most famous carpets in existence today is a Persian carpet from Ardabil. This magnificent masterpiece measuring 34' x 17' is hanging on display in the Victoria and Albert Museum in London, England.

Ardabil rugs feature motifs that are very similar to Caucasian rugs, but with more motifs and objects woven into the borders. The colors are also lighter. The patterns are predominantly geometric and the most common layouts on Ardabil rugs are medallions, multiple connected diamond-shaped medallions, and all-over octagonal shapes. The most recognized design found on Ardabil rugs is the famous Mahi (Herati) design - a diamond medallion and small fish throughout. Some modern weavers have begun to favor bold geometric patterns over the traditional Mahi (Herati) design and have added colors such as turquoise and purple to the more traditional red, pink, ivory, green, and blue.

The warp on Ardabil rugs is mostly cotton, while the weft is either cotton or wool, although silk is also used as weft on fine Ardabil rugs. The highly skilled weavers may also incorporate silk into the woolen pile in order to accentuate some highlights in the pattern. These fabulous rugs are available in all sizes. Their almost nomadic appearance enhances contemporary, traditional, and modern décors. Ardabil rugs includes the following widely known carpets: "Ardabil", "Sheikh Safi", "Sarabi", "Shah Abbasi" and "Mir".

### **Ardass**

#### *Dictionaryoftext00*

Low grade raw silk of Persia, manufactured in Europe into embroidery silk.

*fabric names*  
fine silk

### **Area**

**Ploha, Ploština; Područje, Površina, Prostor; Djelokrug, Zona**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Mjera površine koju zauzima neki dvodimenzijski lik.**

### **Area bonding**

*geocities.com/srimrk/Non\_woven.htm*

This process involves the use of a calender with a hot metal roll opposed by a wool felt, cotton or special composition roll. Two, three or four roll calenders can be used, depending on the weight of the web to be bonded and the degree of bonding desired. The three-roll calender has the heated roll in the middle while the four-roll configuration has the heated rolls on the top and bottom, with the two composition roll in the middle. The amorphous or co-polymeric binder fibers used in this process provide bonding at all cross-over points between the carrier and binder fibers. The resultant product - commonly used in electrical insulation and coating substrates - is smooth, thin and stiff. The material is always two sided, but this effect is most apparent in material processed through two and three roll calenders. Four roll calenders minimize this effect. The application of heat from the outside produces a material whose inner area is less bonded than its outer surface. This becomes more pronounced as the product weight increases beyond 35 g/m<sup>2</sup> and can become detrimental unless corrective measures are taken. These include increasing heat, slowing speed, or increasing the binder/carrier fiber ratio. The two-roll calender is used for low-to-medium weight products with light-to- medium bonding. The three-roll calender is used for special bonding and finish effects on a single surface. The four roll calender produces the widest weight range of materials because it provides more flexibility in the application of heat. .

### **Areal density, Area density**

*Handbook of technical textiles, by A. Richard Horrocks, S. Anand*

Fabric area density is generally expressed in grams per square meter, although sometimes it is reported in grams per linear meter. It is essential to specify whether the area density required is loomstate or finished. The loomstate area density depends on the weave specifications, that is, yarns, thread spacing and weave, and on any additives, such as size, which are used to improve the weaving process. During finishing, the cloth area density is frequently altered by tension and chemical treatments or compressive shrinkage, which affect cloth width and length, by the removal of additives needed in weaving and by substances added during finishing.

*ilcdover.com/products/aerospace\_defense/textileterms.htm*

Mass per Unit Area. Used in weight comparison of composite materials.

*neurolex.org/wiki/Category:Area\_density*

A density quality which is equal to the mass exerting an influence on a given area.

*Testing of metallic and inorganic coatings: a symposium sponsored by ASTM ...*

*By William B. Harding,*

Area density refers to the mass of the coating material per unit area. There is a tendency to think of this as the mass of the coating divided by the area covered by the coating. That would be the average area density. Just as thickness can vary from point to point so can area density. The areal density is equal to the thickness times the density of the coating material.

### **Areal weight**

*composite.about.com/cs/compositedefns/l/blglossary\_a.htm*

Weight (mass) per unit area of a single ply of dry reinforcement fabric.

*Fibreset*

The weight of fiber per unit area (width times length) of tape or fabric.

*Textilesintelligence*

a term commonly used in the nonwovens and composites industries to denote the mass per unit area of a single ply of dry reinforcement fabric.

### **Areophane**

*ebooksread.com/authors-eng/louis-harmuth/dictionary-of-textiles-hci/1-dictionary-of-textiles-hci.shtml*

Thin, solid colored silk gauze, used as millinery and dress trimming.

*Dry goods*

A variety of crape, but considerably thinner than the ordinary kind. It was formerly used chiefly for bonnet trimmings, and quillings, and is now to some extent employed for ball costumes. It is made in all colors, and is cut like all crape, on the bias. [See Crepe de Chine]

### **Argentan lace, Argentan point**

*Beloved linens*

The needle-point lace made at Argentan is the only needle-point lace with a net ground besides Alençon which has ever been made in France. It is probable that factories at both places were established in the reign of Louis XIV. by Colbert, but its name does not appear in the ordinance.

*Britannica*

Lace made at the French town of Argentan from the 17th century, when Louis XIV's minister Jean-Baptiste Colbert founded the lace industry. Characteristic of this lace is a net background consisting of a large hexagonal mesh, the six sides of which are worked over with buttonhole stitching. Flower patterns are similar to those of Alençon, 25 miles away, but are more solid-looking than their Alençon counterparts. Argentan lace making declined after the Revolution but was revived briefly in the 1870s.

*fibrefashion*

a needlepoint lace on a net ground similar to alençon lace but on a larger net and without the cordonnet outline thread of alençon.

*Library*

a needlepoint lace on a net ground similar to alençon lace but on a larger net and without the cordonnet outline thread of alençon.

### **Argentine wool**

*resil.com/c.htm*

Merino crossbred and carpet wools raised in Argentina. Lower grades are often infested with burrs and other vegetable matter to the detriment of the fleece.

### **Argon**

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

An inert gas used as a protective atmosphere surrounding the materials that are sensitive to atmospheric gases.

### **Argyle**

*Ca-bc.com/zip\_internacional/usedmach/education/*

A pattern consisting of diamond shapes of different colors knit in a fabric.

*chezchazz textile*

A particular diamond-shaped plaid pattern, named for the tartan of a clan in the county of Argyll, western Scotland.

*Companya*

A popular design for knitted fabrics. Two or three colors are generally used in a diamond shape arrangement.

*Edwardhiller*

A diamond-shaped plaid pattern for knitted fabrics that is often used on socks and sweaters. Argyle is named after the tartan of a clan in the county of Argyll in western Scotland.

*fibrefashion*

a design of various colored diamond shaped blocks on a single colored ground, usually crossed by lines in a diamond shape. Popular in sweaters and hosiery.

*HAND BOOK ON GLOSSARY OF TEXTILE TERMS, BUREAU OF INDIAN STANDARDS NEW DELHI 110 002, UDC 001.4/677 (021) ISBN 81-7061-009-5*

A term describing a style of diagonal effects in different colours.

*Library*

A design of various colored diamond shaped blocks on a single colored ground, usually crossed by lines in a diamond shape. Popular in sweaters and hosiery.

*Men-clothing*

A design created by placing various colored diamond shaped blocks on a single colored background, usually crossed by lines in a diamond shape. This design is quite popular in men's sweaters and hosiery.

*Probertencyclopedia*

Argyle describes a multi-coloured diamond pattern used mainly for socks and scarves. The Argyle pattern is based upon the tartan of the Scottish Argyle clan.

*Wikipedia*

The argyle (occasionally argyll) pattern is made of diamonds in a diagonal checkerboard arrangement. The word is sometimes used to refer to an individual diamond in the design but more commonly refers to the overall pattern. Most argyle layouts contain layers of overlapping motifs, adding a sense of three-dimensionality, movement, and texture.

The argyle pattern is said to have been derived from the tartan of Clan Campbell, of Argyll in eastern Scotland.

It was much used in the soccer (known as football in Great Britain) dress of the early 1900s, both for jerseys and for the long socks needed for the plus-fours trouser fashion of the day.

It has seen a resurgence in popularity in the last few years, due to its adoption by John Stockton in collections produced by luxury clothing manufacturer, Pringle of Scotland.[citation needed] Argyle socks are worn by revivalist golfers playing with hickory clubs in the pre-1930 style.

The University of North Carolina men's basketball team jerseys have an argyle pattern on the sides.

The Garmin-Slipstream professional cycling team is well known for the argyle they sport on their jerseys. They have been nicknamed the Argyle Armada as a result

As a knitting pattern, argyle is generally accomplished using the intarsia technique. Argyle patterns can also be woven.

### **Argyle gimp**

*HAND BOOK ON GLOSSARY OF TEXTILE TERMS, BUREAU OF INDIAN STANDARDS NEW DELHI 110 002, UDC 001.4/677 (021) ISBN 81-7061-009-5*

A woven figured narrow fabric having three series of wefts and warp. Two series consist of three gimp cords laid flat, the round or third series consists of two gimp cords and forms a plain weave. The two series of three gimp cords form a double,weave raised pattern by

passing through the warp every sixth pick alternately and returning over the top of the warp. The overall width is about 15 mm. The warp is usually of rayon.

*Texworld*

A woven figured narrow fabric having three series of wefts and a warp that is usually continuous filament yarn. Two series consist of three gimp cords laid flat; the ground or third series consists of two gimp cords and forms a plain weave. The two series of three gimp cords form a doublewide raised pattern by passing through the warp every sixth pick alternately and returning over the top of the warp. The over-all width is about 16mm.

### **Aridex**

*Textile terms*

Water repellent wax emulsion finish for cellulosic and wool fabrics.

### **Ariele**

*antique vintage dictionary*

woollen gauze

### **Arithmetic Logical Unit**

#### **Aritmetičko logička jedinica (ALJ)**

*ISACA® Glossary of Terms English - Slovenian*

The area of the central processing unit (CPU) that performs mathematical and analytical operations

### **Arithmetic mean, Arithmetic average**

#### **Aritmetička srednja vrijednost**

*Encyclopedic Dictionary of Polymers, Volume 1 edited by Jan W. Gooch*

(1) In statistics, the average of a set of measurements, found by summing the measurements and dividing the sum by the number of the measurements. (2) The conceptual mean,  $\mu$ , of the population from which the set of measurements was drawn, rarely known exactly.

*INSTRUMENTALNE KEMIJSKE METODE I DIO, Milan Tomljanović Zenica, 2000.*

**Aritmetička srednja vrijednost ( $\bar{x}$ ) predstavlja numeričku vrijednost koja se dobija kada se zbir svih izmjerenih vrijednosti iste mjerene veličine podjeli brojem mjerenja  $n$ .**

*Naftni rječnik – Perić*

**Vrijednost niza (prosjeak skupa) brojeva koja se dobije kada se njihov zbroj podijeli s brojem pribrojnika (s količinom brojeva u nizu), suma  $n$  brojeva podijeljena s  $n$ . Sinonimi:**

**arithmetical mean, arithmetical average, average; v. geometric mean, harmonic mean.**

*Whittington's Dictionary of Plastics, by James W. Carley*

(1) In statistics, the average of a set of measurements found by summing the measurements and dividing the sum by the number of measurements. The conceptual mean,  $\mu$ , of the population from which a set of measurements was drawn, rarely known exactly. The sample mean,  $\bar{x}$ , is the most efficient estimator of the population mean,  $\mu$ .

### **Arithmetic series**

#### **Aritmetički niz**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Niz brojeva u kojemu je razlika između dvaju susjednih članova stalna.**

### **Arm length**

*Cherry*

The arm length is the distance from the rod to the acromion process. The acromion process is the bone like protuberance at the edge of the shoulder

*domex.nps.edu/corp/files/govdocs1/151/151809.pdf*

The distance measured from the right shoulder point, along the outside of the arm, over the elbow, to the far end of the prominent wrist bone, with the subject's right fist clenched and placed on the hip, and with the arm bent at right angle.

*Handbook of virtual humans, by Nadia Magnenat-Thalmann, Daniel Thalmann*

The distance from the armscye shoulder line intersection (acromion) over the elbow to the far end of the prominent wrist bone (ulna) in line with small finger, measured with the subject's right fist clenched and placed on the hip, and with the arm bent at 90°.

*resil.com/c.htm*

In body measurements, with the arm bent at 90° and the clenched fist placed on the hip, the distance from the shoulder joint along the outside of the arm over the elbow to the greatest prominence on the outside of the wrist.

*tx.ncsu.edu/3dbodyscan/pdf\_docs/microsoft word - a1paper2.pdf*

The arm length is defined as the distance from the armscye/shoulder line intersection (acromion), over the elbow, to the far end of the prominent wrist bone (ulna), with fists clenched and placed on the hip and with the arms bent at 90 degrees

*Wikipedia*

distance, measured using the tape-measure, from the armscye/shoulder line intersection (acromion), over the elbow, to the far end of the prominent wrist bone (ulna), with the subject's right fist clenched and placed on the hip, and with the arm bent at 90°

### **Arm machine**

*Amefid embroidery terms*

Embroidery machine that has an arm or cylinder that the hook and bobbin are mounted in. Allows the use of special frames for embroidering caps, socks, inside pockets, etc. The cylinder-shaped arm allows goods to curve around the cylinder for embroidery.

*Needlepointers*

Multihead embroidery machine driven by a single main shaft. Each sewing head is attached to the shaft, usually by gears. Sewing heads resemble industrial sewing machines in the "arm" that the needle case is attached to.

### **Arm socks, Arm warmers**

*apparesearch.com/Definitions/Clothing/arm\_warmer.htm*

Arm warmers (or arm socks) are knitted 'sleeves' worn on the arms. Usually worn by dancers to warm up their bodies before class, they have also become somewhat of a fashion item, appearing in the fall. These arm warmers are virtually identical in fabric and style as those worn by dancers. Arm warmers can also describe any glove-like articles of clothing that lack finger coverings and/or were originally designed to keep wrists and lower arms warm. Today, many competition and sport bicyclists wear spandex-compression arm-warmers. Various subcultures, such as the punk and goth subcultures, have also adopted arm warmers as a fashion statement.

*Clothingdictionary.com*

Gloves, similar to the leg warmers worn by dancers. Some styles are fingerless but some do have fingers that are cut off to expose the fingers, usually from the second knuckle down to the tip of the finger. Arm socks can be made in anything from sheer mesh and fishnet to heavy knits like socks. Currently popular with punk dressers.

### **Armature disc, Armature plate**

#### **Kotva**

*struna\_knj\_14\_strelementi\_04(1381).pdf – Foxit Reader*

**Dio elektromagnetske lamelne spojke aksijalno pomičan na glavini koji elektromagnet privlači prema tarnoj lameli. Pri prolazu struje magnet privlači kotvu, koja tlači prema tarnoj ploči, te spaja oba dijela stvarajući vezu silom.**

### **Armband, Arm band**



### *Apparemssearch*

a band usually worn around the upper part of a sleeve for identification or in mourning

### *Ascotformalwear*

An elastic band worn over a shirt on upper arm under coat to shorten a shirt sleeve. Especially useful with boy's size shirts.

### *Wikipedia*

An armband is a piece of cloth worn around the arm over the sleeve of other clothing to mark the wearer as belonging to group, having a certain rank or role, or being in a particular state or condition. When used as part of a military uniform it is called a brassard. Uniforms serving other purposes such as to identify members of clubs, societies or teams may also have armbands for certain ranks or functions. An armband might identify a group leader, a team captain, or a person charged with controlling or organizing an event. Armbands are sometimes used to indicate political affiliations or to identify the wearer with an ideology or social movement. In some cultures the wearing of a black armband signifies that the wearer is in mourning or wishes to identify with the commemoration of a comrade or team member who has died. This use is particularly common when a group or team meets after having lost a member. In the movie *It's a Wonderful Life*, George Bailey is seen wearing a black armband in several scenes after the death of his father. Black armbands are referenced in Tom Lehrer's song, *We Will All Go Together When We Go*, and in the Guns N' Roses song *Civil War*. The phrase to wear your heart on your sleeve, meaning to show your feelings, to display an emotional affiliation or conviction, is supposedly related to armbands. In medieval jousts, ladies of the court were said to tie a piece of cloth — a scarf or kerchief — around the arm of their favorite knight, who thus displayed his affection for the lady.

### **Armenian lace, Bebilla**

*A Dictionary of Lace, by Pat Earnshaw*

A knotted lace of the 19th and 20th centuries made around the shores of the eastern Mediterranean. It was worked in the Armenian edging stitch.

*antique vintage dictionary*

A lace of mainly looped threads

*Lacemakers'*

Composed mostly of looped threads, it is also called \*bebilla.

*Nationmaster*

Armenian needlelace seems to be an obvious descendent of netmaking. Where lacing adds decorative stitches to a net ground, Armenian needlelace involves making the net itself decorative.

There is some archeological evidence suggesting the use of lace in prehistoric Armenia and the prevalence of pre-Christian symbology in traditional designs would certainly suggest a pre-Christian root for this art form.

In contrast to Europe where lace was the preserve of the nobility, in Armenia it decorated everything from traditional headscarves to lingerie and lacemaking was part of many or most women's lives.

The lace is made by tying knots, usually tied onto the previous round of the piece creating small loops of thread onto which the next round of knots can be tied. Patterns are created by varying the length of the loops, missing loops from the previous round, adding extra loops and similar.

When used as an edging the lace can be made directly onto the hem of the fabric being edged. When a doily or freeform object (such as the birds and flowers decorating traditional headscarves) is being started a series of loops is tied onto a slip knot which is pulled tight to complete the first round.

### *Wikipedia*

The lace is made by tying knots, usually tied onto the previous round of the piece creating small loops of thread onto which the next round of knots can be tied. Patterns are created by varying the length of the loops, missing loops from the previous round, adding extra loops and similar. When used as an edging the lace can be made directly onto the hem of the fabric being edged. When a doily or freeform object (such as the birds and flowers decorating traditional headscarves) is being started a series of loops is tied onto a slip knot which is pulled tight to complete the first round.

### **Armhole**

*resil.com/c.htm*

In garment construction, the area of a garment through which the arm passes or into which a sleeve is fitted. The armhole is not necessarily the same shape or location as the armscye. (Compare 'Arm-scye'.)

*Textile Glossary, Huddersfield Fine*

The shape and size of the armholes can have a significant effect of the fit and appearance of a tailored garment. A small, high armhole will allow the wearer more movement. A looser, armhole may be more comfortable to wear, but the jacket may rise up on the shoulders when the wearer is seated, or moving

*Tuxship.com*

the area of the jacket surrounding the top of the arm. In theory, the larger the armhole, the looser the fit of the coat and the shorter the length of the in-sleeve.

### **Arhmhole markings**

*Burdastyle*

Little cross-bars marked on the sleeve edges and armholes on the front sewing pattern pieces show exactly where the sleeves should meet the armholes, thus ensuring that the right sleeve will be placed in the right armhole and the left sleeve in the left armhole.

### **Armistice cloth**

*antique vintage dictionary*

worsted cloth used after the Boer War

### **Armour**

*vidi*

### **Shield**

### **Armoured Cables**

#### **Oklopljeni kablovi**

*Technical Textile Terms Glossary \_ American & Efirid*

Cables that have a metal jacket below the outer synthetic coating or jacket. The purpose is to protect buried cables from being cut easily.

### **Armoured fabrics**

*Texmachienry*

A broad classification of glass, asbestos, cotton, rayon and other fabrics coated or impregnated with polyvinyl chloride, cellulose nitrate, natural or synthetic rubber, or synthetic resin compositions for protection against severe conditions of exposure.

### **Armozine**

*antique vintage dictionary*

corded, strong silk fabric

*Die.net*

A thick plain silk, generally black, and used for clerical.

## **Armpit**

*resil.com/c.htm*

In anatomy, the hollow under the junction of the arm and the shoulder.

*Wikipedia*

The axilla (or armpit, underarm, or oster) is the area on the human body directly under the joint where the arm connects to the shoulder.

## **Armhole**

*About.com*

Armhole is an armhole in the body of the garment that the sleeve or facing will fit into during construction of the garment. Any adjustment made to the armhole on the pattern, must also be made to the sleeve or facing so that the pieces will fit together during construction.

*lutzfamilyfabricshop.com/Glossary\_JXEM.php*

Armhole is an armhole in the body of the garment that the sleeve or facing will fit into during construction of the garment.

*resil.com/c.htm*

In garment construction, the opening in a garment for attachment of a fitted sleeve. Armhole is a tailor's term for armhole. The opening follows a line passing over the shoulder joint, front- and back-break points and armpit area. (Compare 'Armhole'.)

*sewingweb.com/dictionary/*

Armhole. The story has it that the word is derived from the term "arm's eye", as in the eye of a needle. In this case, though, the arm goes through, not the thread.

*Wikipedia*

In sewing, the armhole is the armhole, the fabric edge to which the sleeve is sewn. The length of the armhole is the total length of this edge; the width is the distance across the hole at the widest point.

## **Armhole circumference**

*resil.com/c.htm*

In body measurements, the body measurement with the arm hanging down, the distance from the shoulder joint through the front-break point, the armpit, the back-break point and to the starting point.

## **Armhole depth**

*b-u.ac.in/sde\_book/fashion\_design.pdf*

Measure from base of neck at centre back to a point directly below it an in level with the bottom of the arm where it joints the body

*domex.nps.edu/corp/files/govdocs1/151/151809.pdf*

The vertical distance measured from the 7th cervical vertebra to the armpits level.

## **Armhole-to-waist**

*domex.nps.edu/corp/files/govdocs1/151/151809.pdf*

The distance measured from the mid-point of the armpit, along the side of the body, to the waist

## **Armure, Royal armure, Cannetillé**

*Collectionslinks.org.uk*

This term is given to cloth which can be woven for either dress or furnishing. The word is a derivation of the French word „armour“. Its woven effect gives a pebble-like appearance with

a resemblance, as the name suggests, to chain mail. The cloth comprises of two warps, one is lightly weighted whilst the other is heavier, the cloth is constructed by the use of an eight shaft.

#### *Dictionaryoftext00*

1, French term for small pattern in pebbled or embossed effect; 2, a great variety of dress goods made of Botany wool, mohair, cotton or artificial silk or combinations of these fibers, made in a small pebbled or embossed effect which is produced from warp or weft ribs.

#### *Dry goods*

[French for "armor"] The word is suggestive of the style of weaving. In feudal times an armor was worn by men made of small metal plates and lapping over one another like fish scales, so as to be flexible with every movement of the body. The weave of armure silk dress fabric is an imitation of this armor, the surface ridge of the pattern always forming a small diamond or other angled figure. There is also Satin Armure and Armure Bosphore, this latter being reversible. Royal Armure is heavier than ordinary dress silk; the widths vary from 22 to 24 inches.

#### *Fahion, Fabric and Clothing g.*

Cotton, silk, wool, rayon, synthetics, and blends. The weave can be plain, twill, or rib, background often has a small design either jacquard or dobby made with warp floats on surface giving a raised effect. Design is often in two colors and raised. The name was derived from original fabric which was woven with a small interlaced design of chain armor and used for military equipment during the Crusades. Often used in elegant evening gowns, draperies, or upholstery.

#### *HAND BOOK ON GLOSSARY OF TEXTILE TERMS, BUREAU OF INDIAN STANDARDS NEW DELHI 110 002, UDC 001.4/677 (021) ISBN 81-7061-009-5*

A dress fabric in modified or broken warp rib weaves exhibiting horizontal waved lines. The wave effect is rendered conspicuous by using in the warp, mohair and merino wool or merino wool and cotton yarns, in S and Z twist arranged end and end.

#### *Ntgclarity.com*

Cotton, silk, wool, rayon, synthetics, and blends. Weave: Plain, twill, or rib, background often has a small design either jacquard or dobby made with warp floats on surface giving a raised effect. Characteristics: Design is often in two colours and raised. The name was derived from original fabric which was woven with a small interlaced design of chain armor and used for military equipment during the Crusades. Uses: Elegant evening gowns, draperies, or upholstery.

#### *Phrontistery*

twilld woollen or silk fabric

#### *Texsite*

silk fabric of a fine, small often geometric texture, usually created from a twill weave. Made from natural and synthetic silk and used for neckties and ladies' dresses. Name is from the French - a term for a twill weave.

#### *Texworld*

A French term for a small pattern in pebbled or embossed effect, hence: (i) amiur6 weave: a weave designed to produce this effect, for example, a weave of a broken or wavy rib character. In some cases, a definite figure rather than a textural surface is produced. If the ribs are broad, they may have the long floats on the back stitched, and (ii) armur'e fabric: a fabric in an armur'e weave.

#### *Vintage sewing woolens*

Similar to alpaca and used for the same purposes. Woven in bird's-eye and diamond effect, sometimes in two colors.

### **Army gray**

### *Barlick*

A heavy plain cloth used for army shirts. Also known as " silver greys." Generally made from all cotton, but a few cloths have had about 5 to 10 per cent. of wool in the weft. After weaving, they are soft finished and brush raised. A standard cloth is 30 in., 120 yards, 44 ends, 48 picks, 2/18's twist, 12's lavender-dyed weft.

### **Aromatic**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

(1) Having a strong but pleasant odour, spicy, fragrant, etc. (2) Describing a major class of unsaturated cyclic hydrocarbons, characterised by the presence of one or more rings. They are so called because they have a strong odour. The class is typified by benzene, which has a six-carbon ring, containing three double bonds. Other aromatic series include the naphthalenes and the anthracenes.

*Alken.murray.com/fuel.glossary.htm*

Group of hydrocarbons of which benzene is the parent. They are called "aromatics" because many of their derivatives have sweet or aromatic odors.

*composite.about.com/library/glossary/a/bldef-a409.htm*

A class of organic compounds containing an unsaturated ring of carbon atoms. Included are benzene as well as the fused ring systems of naphthalene, anthracene and their derivatives.

*fire.org.uk/glossary.htm*

An organic compound having as part of its structure a benzene ring. The term 'aromatic' as used in the fragrance industry is used to describe essential oils, which are not necessarily aromatic in the chemical sense.

*Glosary of polymers*

A compound containing a series of benzene (6 Carbon) rings; so named because many have a distinctive odor.

*Marriam Webster*

characterized by increased chemical stability resulting from the delocalization of electrons in a ring system (as benzene) containing usually multiple conjugated double bonds

*microspecorporation.com/technical\_glossary.php*

A polymer composed of carbon and hydrogen which contains benzene rings or similar rings of atoms. The bonds form a very stable molecule. See Aliphatic compound.

*plc.cwru.edu/tutorial/enhanced/files/glossary/glossary.htm*

A compound containing a series of benzene (6 Carbon) rings; so named because many have a distinctive odor.

*Reference dictionary*

characterized by increased chemical stability resulting from the delocalization of electrons in a ring system (as benzene) containing usually multiple conjugated double bonds

*Whittington's Dictionary of Plastics, by James W. Carley*

A class of organic compounds containing a resonant, unsaturated ring of carbon atoms. Included are benzene, naphthalene, anthracene and their derivatives. The term „aromatic“ stems from the fact that many of these compounds have an agreeable odour.

### **Aromatic alcohol**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

An aromatic compound having a hydroxyl group located in a side chain on a benzene ring.

### **Aromatic aldehyde**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

An aromatic compound having the –CHO group, for example benzaldehyde.

### **Aromatic compounds**

*Encyclopedic Dictionary of Polymers, Volume 1 edited by Jan W. Gooch*

A class of organic compounds containing a resonant, unsaturated ring of carbon atoms. Included are benzene, naphthalene, anthracene and their derivatives. The term aromatic stems from the fact that many of these compounds have an agreeable odour

### **Aromatic hydrocarbons, Arenes**

*answers.com/topic/aromatic-hydrocarbon*

A member of the class of hydrocarbons, of which benzene is the first member, consisting of assemblages of cyclic conjugated carbon atoms and characterized by large resonance energies. Also known as arene.

*composite.about.com/library/glossary/a/bldef-a411.htm*

A hydrocarbon with a molecular structure involving one or more benzene unsaturated resonant rings of six carbon atoms, and having properties similar to benzene, which is the simplest of the aromatic hydrocarbons. Members of the family include many solvents for plastics.

*finishwiz.com/definitions.htm*

Aromatic Hydrocarbons derive their name from the "pleasant" odor attributed to many of these substances. The aromatic solvents are produced from the distillation of petroleum or coal tar. A class of relatively strong organic solvents which contain an unsaturated ring of carbon atoms. Not all molecules with ring (loop) structures are aromatic. Examples are Toluene (toluol), Xylene (xylol), Phenol, Benzene, Styrene, Diethylbenzene, Methyl-naphthalene, Ethylbenzene.

*georgiastrait.org/?q=node/504*

Highly flammable. Heating may cause pressure buildup and possible rupture of the container. Eye and skin irritant. May contain traces of benzene, which is carcinogenic. Neurotoxic. Used in some adhesives.

*telfordsmith.com.au/glossary.asp?letter=F&page=5*

Hydrocarbons derived from or characterized by presence of unsaturated resonant ring structures.

*Whittington's Dictionary of Plastics, by James W. Carley*

A compound of carbon and hydrogen whose molecular structure contains one or more rings of six carbon atoms, with at least one of the rings containing alternating, resonant single and double bonds. Benzene, which is the simplest of aromatic hydrocarbons, has the molecular formula C<sub>6</sub>H<sub>6</sub>. The family includes many solvents for plastics.

*wordnetweb.princeton.edu/perl/webwn?s=aromatic hydrocarbon*

a hydrocarbon that contains one or more benzene rings that are characteristic of the benzene series of organic compounds

### **Aromatic polyamide**

#### **Aromatski poliamid**

*Polymer Technology Dictionary, by Tony Whelan*

A polyamide based on main-chain aromatic groups. Many different types of polyamides are possible, but, for various reasons, these based on aliphatic chemicals are preferred. In general, an aromatic PA will take longer to prepare, will colour easily during polymerisation and will decompose before melting. However, because they contain main-chain aromatic groups, they

possess better heat resistance and stiffness than aliphatic polyamides. (See – Aramide and Polyaryl amide.)

### **Aromatic polyester**

#### **Aromatski poliester, Poliarilat**

*Hrvatsko nazivlje polimerstva, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Poliester načinjen od monomera u kojemu su sve hidroksilne i karboksilne skupine izravno vezane za aromatsku jezgru.**

*Polymer Technology Dictionary, by Tony Whelan*

A polyester derived from monomers in which all the hydroxyl and carboxyl groups are linked directly to aromatic nuclei. A material based on linked ring structures is a fully aromatic, saturated polyester. (See – Polyarylate.)

### **Aromatic polymer**

*Encyclopedic Dictionary of Polymers, Volume 1 edited by Jan W. Gooch*

Polymers the backbone of which consist of repeating aromatic ring units. Aromatic rings in a unit may be single, fused, or joined by a chemical bond, bridging atom, or a group of atoms. Aromatic rings are six carbon rings containing three double bonds and are typified by benzene. Some hydrogen atoms in these rings may be substituted by other atoms or atom groups.

*Introduction to polymer science and technology, by Mustafa Akay*

Aromatic polymers (e.g. polycarbonate and polyether ether ketone) are identified by backbone chains which contain benzene rings and/or its derivatives. They are so called because of the strong odour and fragrance of the associated chemicals, such as benzene. Aromatic polymers have good thermal stability, which can be further improved by heterocyclic arrangement.

Some aromatic polymers remain crystalline in solution and in the molten state, i.e. they are „liquid crystalline polymers“. Mechanical stiffness of both aromatic and aliphatic polymers can be considerably improved by achieving ladder-like molecular structures along the backbone chains.

*Polymer Technology Dictionary, by Tony Whelan*

A polymer containing aromatic rings in the main chain, often based on fused benzene rings. May be partially aromatic (for example polyethylene terephthalate) or completely aromatic (for example polyphenylene). Polymers which contain aromatic groups have desirable properties, such as high heat distortion temperature, thermal stability and stiffness. The presence of rings raises resistance to thermal degradation as the thermal energy is dissipated along the aromatic chain. Processing of aromatic polymers is, however, difficult because of the high processing temperatures required and because of the high pressures needed to obtain the desired flow rates in melt processes, such as injection moulding. Easier processing is possible if the aromatic groups are spaced with other groups or linkages, for example, spacing them with aliphatic groups or segments. This gives a semi-aromatic polymer, which is easier to process than the fully aromatic structure. Aromatic polymers often have excellent heat stability, but are often intractable, and so may be produced from low molecular weight intermediates by, for example, solution casting and sold in finished form.

### **Aromatic solvent**

#### **Aromatsko otapalo**

*composite.about.com/library/glossary/a/bldef-a413.htm*

Hydrocarbon solvents comprised wholly or primarily of aromatic hydrocarbon compounds. Aromatic solvents containing less than 80% aromatic compounds are frequently designated as partial aromatic solvents.

*Enviro-solution.com*

Solvents made of compounds that contain an unsaturated ring of carbon atoms, typified by benzene's structure. Xylene and toluene are aromatic solvents and are extremely harmful to humans.

*etfinancial.com/coatingsgloss.htm*

Hydrocarbon solvents which contain an unsaturated ring of carbon atoms, including benzene, naphthalene, anthracene, and their derivatives. Toluene (toluol) and xylene (xylol) are commonly used aromatics. These solvents are characterized as volatile organic compounds (VOCs).

*Glossary of Paint and Coatings Terminology, M. Pavlič, Ljubljana 2002.*

Hydrocarbon solvents which contain an unsaturated ring of carbon atoms, including benzene, naphthalene, anthracene, and their derivatives. Toluene (toluol) and xylene (xylol) are commonly used aromatics. These solvents are characterised as volatile organic compounds (VOC).

## **Arras**

*Beloved linens*

Lace made in the north of France in Arras

*Dry goods*

Arras cloth takes its name from the town of Arras, situated in the north of France. In the fourteenth century this place was the chief seat of French tapestry manufacture, for both quality and quantity. Hence, in time, the term Arras came to signify any sort of tapestry, wherever made. [See Tapestry]

*Enotes*

Tapestries produced in the 14th and 15th centuries at Arras in northern France. They are first mentioned in 1313 and their pre-eminent reputation during the later Middle Ages is attested by the fact that the name of the town passed into several European languages as a generic term for tapestry hangings (Polonius is hiding 'behind the arras' when he is killed by Hamlet). However, production was in decline by the mid-15th century (Tournai had become the leading centre of the art) and the industry was brought to an end when Louis XI of France captured Arras in 1477 (at this time it was part of Burgundy) and expelled the citizens. Subsequent attempts to re-establish it bore little fruit. A number of surviving tapestries have been ascribed to Arras looms, but the only one that is documented is that in Tournai Cathedral depicting the lives of Sts Piat and Eleutherius; it formerly bore the signature of Pierrot Feré of Arras and the date 1402.

## **Arrasene**

*Dry goods*

A sort of cord made with a central thread and a thick velvet-like pile of wool or silk fastened round it. It is used in raised embroidery work.

*fabric names*

embroidery material of wool and silk

*Victorian embroidery*

Arrasene, also spelled arasene, is an embroidery material that was very popular during Victorian times but is not seen much today. It was introduced for artistic embroidery around 1883 and was thought to likely supersede Filoselle and Crewels in all kinds of bold designs in decorative needlework. It is a kind of fine chenille, comes in both silk and wool, and in all the beautiful varieties of color necessary for shading. It is suitable thus not only for all kinds of home decoration, but also for embroidering articles of wearing apparel, and it is equally suitable for the finest fabrics, as well as the cheaper materials used in needlework.

## **Arsenic**



*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

A chemical element having the symbol As, the atomic number 33, an atomic weight of 74.9216, and a boiling point (sublimes) of 613<sup>0</sup>C. It is a silver-gray crystalline solid, forming compounds that are highly toxic and carcinogenic.

### **Arsenic bisulfide**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

As<sub>2</sub>S<sub>2</sub>. Red, orange or black crystal that melts at 307<sup>0</sup>C, soluble in acids and alkalis, insoluble in water. Used as a pigment and in the leather industry.

[archive.org/stream/condchemdiction00chemrich/condchemdiction00chemrich\\_djvu.txt](http://archive.org/stream/condchemdiction00chemrich/condchemdiction00chemrich_djvu.txt)

Arsenic Bisulfide\* (Red orpiment; Ruby arsenic; Realgar; Red arsenic glass) AS<sub>2</sub>S<sub>2</sub>.

Color and properties: Orange-red powder; poisonous. Constants: Specific gravity 3.4-3.6; melting-point 307C. Soluble in acids and alkalis; insoluble in water. Derivation: By roasting mispickel and iron pyrites and sublimation. Grades: Technical. Containers: Iron canisters.

Uses: Depilatory agent; leather industry; paint pigment; shot manufacture; pyrotechnics; calico dyeing and printing. Fire hazard: None.

[Naldr.nalusda.gov](http://Naldr.nalusda.gov)

Also known as ruby arsenic, red arsenic sulfide, and red arsenic. It is an orange-red poisonous powder, soluble in acids and alkalies, which is in wide commercial use (AS<sub>2</sub>S<sub>2</sub>). It is insoluble in water.

### **Arsenic pentasulphide**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

As<sub>2</sub>S<sub>5</sub>. Yellow or orange crystal, soluble in nitric acid and alkalis, insoluble in water. Used as a pigment.

### **Arsenicated hides**

[Naldr.nalusda.gov](http://Naldr.nalusda.gov)

Dry hides treated with a solution of sodium arsenite. Arsenication is usually done at the warehouse before export in order to protect the hides from insects. Also called poison-cured hides.

### **Art deco**

*haute couture jargon*

style of decorative art; popular in 1920s and 1930s, characterized by contrasting geometrical shapes and heavily outlined patterns. cf. art nouveau.

*Wikipedia*

Art Deco was a popular international design movement from 1925 until 1939, affecting the decorative arts such as architecture, interior design, and industrial design, as well as the visual arts such as fashion, painting, the graphic arts and film. This movement was, in a sense, an amalgam of many different styles and movements of the early 20th century, including Neoclassical, Constructivism, Cubism, Modernism, Art Nouveau, and Futurism.[1] Its popularity peaked in Europe during the Roaring Twenties[2] and continued strongly in the United States through the 1930s.[3] Although many design movements have political or philosophical roots or intentions, Art Deco was purely decorative.[4] At the time, this style was seen as elegant, functional, and modern. Art Deco experienced a decline in popularity during the late 30s and early 40s, and soon fell out of public favor. It experienced a resurgence with the popularization of graphic design in the 1980s. Art Deco had a profound

influence on many later artistic movements, such as Memphis and Pop art. Surviving examples may still be seen in many different locations worldwide, in countries as diverse as the United Kingdom, Spain, Cuba, the Philippines, Romania and Brazil. Many classic examples still exist in the form of architecture in many major cities. The Chrysler building, designed by William Van Alen, is a classic example of this, as it is one of the most notable examples of Art Deco architecture today.

### **Art linen, Embroidery linen**

*Ca-bc.com/zip\_internacional/usedmach/education/*

A plain-weave, softly finished fabric used either bleached or unbleached as a base fabric for needlework.

*fibre2fashion*

a balanced plain weave fabric usually of linen or linen/cotton . It is made from smooth round yarns (not flattened by calendering) . Used as a base for embroidered table linen, pillowcases, also in drapes, slipcovers and some apparel. Also called embroidery crash.

*higheredbcs.wiley.com/legacy/college/nielson/0471606405/supplementary/Decorative\_and\_Support\_Fabrics\_Glossary.pdf*

Base cloth for heavy embroidery made of linen or cotton with round, smooth yarns.

*Library*

a balanced plain weave fabric usually of linen or linen/cotton . It is made from smooth round yarns (not flattened by calendering) . Used as a base for embroidered table linen, pillowcases, also in drapes, slipcovers and some apparel. Also called embroidery crash.

*Textile glossary*

Plain weave, cylindrical yarn with very soft finish that makes the well-known needlework base fabric on which it is easy “to draw the yarns.”

Closely woven round-thread linen, used chiefly for embroidery generally in the plain weave, Bleach, unbleached, and colors. Also used for dresses and table liners.

A plain-weave, softly finished fabric used either bleached or unbleached as a base fabric for needlework.

### **Art nouveau**

*haute couture jargon*

new art style of art developed in the last decade of the 19th century, characterized by free use of ornament based on organic or foliate forms and by its flowing (i.e. non-geometrical) lines and curves; graceful, exaggerated lines, elongated strokes ending in curlicues and flower and leaf motifs. cf. art deco.

*Wikipedia*

Art Nouveau is an international movement[2] and style of art, architecture and applied art—especially the decorative arts—that peaked in popularity at the turn of the 20th century (1890–1905).[3] The name 'Art nouveau' is French for 'new art', it is also known as Jugendstil, German for 'youth style', named after the magazine Jugend, which promoted it. A reaction to academic art of the 19th century, it is characterized by organic, especially floral and other plant-inspired motifs, as well as highly-stylized, flowing curvilinear forms.[4] Art Nouveau is an approach to design according to which artists should work on everything from architecture to furniture, making art part of everyday life.[5]

### **Art silk**

*Area-rug-tips.com*

Also known as false silk, art silk is an artificial yarn made from cotton, rayon or polyester. It resembles real silk and is soft to the touch. It is often used as an alternative to real silk because art silk is less costly.

#### *Carpets & Rugs*

Short for artificial silk, it describes the use of mercerized cotton or artificial fiber that attempts to take on the appearance of silk. The fiber is very soft to the touch and is used to create the look and feel of silk without the cost. Sometimes used to deceive potential buyers. Artificial silk, normally made with mercerized cotton. It loses its sheen when used and doesn't wear well.

*navajorugrepair.com/orientalterms.htm*

Short for artificial silk, it is usually mercerized cotton, rayon or polyester that appears to be silk. Oftentimes artificial silk rugs are sold as real silk.

#### *Rugwarehouse*

Artificial silk can be created using a variety of fibres such as viscose or rayon. It resembles real silk in many ways; from the soft touch to the light reflective nature of silk. While these imitations can be extremely well done, they lack the durable superiority of silk. The main advantages of art silk are the cost and maintenance expenditure.

#### *Wikipedia*

Artificial silk or (as the term is used in the textile industry) art silk is a synthetic manufactured fiber which resembles silk but costs less to produce. Frequently, art silk is just a synonym for rayon. The first successful artificial silks were developed in the 1890s of cellulose (wood) fiber and marketed as art silk or viscose, a trade name for a specific manufacture.[1] In 1924, the name of the fiber was officially changed in the U.S. to rayon, although the term viscose continued to be used in Europe and currently the material is referred to in the industry as viscose rayon.[2] Although not sold under the name art silk initially, nylon, the first synthetic fiber, was developed in the United States in the late 1930s and used as a replacement for Japanese silk during World War II. Its properties are far superior to rayon and silk when wet, and so it was used for many military applications, such as parachutes. Although nylon is not a good substitute for silk fabric in appearance, it is a successful functional alternative. Du Pont's original plans for nylon to become a cheaper and superior replacement for silk stockings[3] were soon realized[4], then redirected for military use[5][6] just two years later during World War II. Nylon became a prominent industrial fiber in a short time frame, permanently replacing silk in many applications. In the present day, imitation silk may be made with rayon[7], mercerized cotton[8], polyester[9], a blend of these materials, or a blend of rayon and silk. Despite a generally similar appearance, genuine silk has unique features that are distinguishable from artificial silk. However, in some cases art silk can be passed off as real silk to unwary buyers. A number of tests are available to determine a fabric's basic fiber makeup, some of which can be performed prior to purchasing a fabric whose composition is questionable. See the external links section below.

### **Art ticking**

#### *Beloved linens*

Distinguished from regular bed ticking by its printed design. Often a floral pattern in a stripe. A tough firm cloth. Uses: mattresses and pillow covers, sometimes as cretonne. Weave—Satin or twill. Width, 36".

### **Article**

*vidi*

### **Manufactured part**

### **Articulated chain**

**Zglobni lanac**

*struna\_knj\_14\_strelementi\_04(1381).pdf – Foxit Reader*

**Lanac za prijenos snage sastavljen od pločica vezanih svornjacima. Kao pogonski lanci upotrebljavaju se, ovisno o opterećenju i obodnoj brzini, razne vrste zglobnih lanaca, dok člankasti lanci dolaze u obzir samo za dizanje tereta.**

### **Artificial ageing**

*Chemicalfabricsandfilm*

The accelerated testing of materials to determine the changes of properties (dimension stability, chemical/solvent resistance, low temperature cracking, etc.).

*composite.about.com/library/glossary/a/bldef-a415.htm*

The accelerated testing of plastics to simulate long-term changes in properties such as dimensional stability, water resistance, resistance to chemicals and solvents, light stability and fatigue resistance.

*Encyclopedic Dictionary of Polymers, Volume 1 edited by Jan W. Gooch*

The accelerated testing of plastics to determine their changes in properties, such as dimensional stability, water resistance, resistance to chemicals and solvents, light stability and fatigue resistance.

*Plastics Materials and Processes, by Charles A. Harper, Google books*

Exposure of materials to laboratory conditions that are meant to accelerate the effects of time. Such conditions may include heating, exposure to cold, flexing, application of electric field, exposure to chemicals, ultraviolet light, etc. The conditions chosen for such testing reflect the conditions under which the tested articles will be used. Usually, the length of time the articles are exposed to these conditions is relatively short. Properties such as dimensional stability, mechanical fatigue, chemical resistance, stress cracking resistance and dielectric strength are evaluated in such testing.

*telfordsmith.com.au/glossary.asp?letter=F&page=5*

The accelerated testing of plastics specimens to determine their changes in properties. Carried out over short period of time, such tests are indicative of what may be expected of a material under service conditions over extended periods. Typical investigations include those for dimensional stability; the effect of immersion in water, chemicals and solvents; light stability and resistance to fatigue.

### **Artificial atmosphere**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

A gas or mixture of gases used in place of air in industrial or laboratory operations. Classified as an active, or process atmosphere, or an inactive, or protective, atmosphere.

### **Artificial cotton**

*Barlick*

This is prepared from the barked trunks of pine trees by the reduction of thin shavings into wood-wool, which is washed, then acted upon by steam, and heated with caustic soda under pressure, being thus converted into cellulose. This paste-like substance is reheated and pressed through a form of sieve into threads. By treating with ammonia and sprinkling with water these threads are made flexible and as easy to work as cotton. The wood is not abundant, and the cost of production is very heavy, which tends to prevent this fibre becoming a commercial success. [SG note. This was rayon and eventually became the basis for a large industry. Practiced at James Nelson in Nelson in 1930s. One type was called Lustrafil.]

*Dictionaryoftext00*

Made by pine shavings being treated with caustic soda under pressure.

### **Artificial daylight**

*answers.com/topic/artificial-daylight*

Illumination of an intensity greater than the light of a full moon on a clear night.

*coloraccuracy.com/default.*

Term loosely applied to light sources, frequently equipped with filters, that try to reproduce the color and spectral distribution of daylight. A more specific definition of the light source is preferred.

*idigitalphoto.com/dictionary/artificial\_daylight*

Illumination that approximates natural daylight in its spectral properties (a) for photo-sensitive materials e.g. 'blue' flash-bulbs or (b) to deliver a colour rendering index close to that of daylight e.g. daylight fluorescent lamps. When daylight's green Daylight fluorescent lamps may produce light that seems cool and white, with good rendering of colours, but colour film thinks different. It will still need filtration or correction after scanning.

### **Artificial intelligence**

#### **Umjetna inteligencija (UI)**

*ISACA® Glossary of Terms English - Slovenian*

Advanced computer systems that can simulate human capabilities, such as analysis, based on a predetermined set of rules.

### **Artificial lace**

*Malmazet*

A term applied to a lace that is not woven or embroidered, produced entirely by chemical methods, frequently made of celluloid or pulp.

### **Artificial leather**

*Beloved linens*

A substitute for leather made by coating a cotton fabric with a nitro-cellulose preparation and embossing the surface to imitate leather. Various effects produced by kind of fabric foundation and the color and finish of surface. A good grade of manufactured leather is more durable than a poor grade of split leather. Sold under trade names as Pantasote, Leatkerwove, Fabrikoid, Zapon, etc. Uses: upholstery, suit cases, millinery and dress trimmings.

*haartz.com/en/consumer\_info/glossary/glossary.asp#D*

Surface coated fabric whether used for top material, upholstery or for auto interior trim.

Generally these were *pyroxylin* coated fabrics. The term was pretty much obsolete after 1950, but during later years of use, was cleverly modified to "art leather".

*Texsite*

plastic underlay, produced by the pigmentation of deposits on plastic, fabric or another underlay material. As depositing plastics, polyvinyl chloride, polyurethane, polyacrylate or a combination of these are used. A. l. is suitable for the manufacture of ladies' and men's coats, jackets, sports jackets, and also as a combinable material.

*Wikipedia*

Artificial leather is a fabric or finish intended to substitute for leather in fields such as upholstery, clothing and fabrics, and other uses where a leather-like finish is required but the actual material is cost-prohibitive or unsuitable.

### **Artificial resin finish**

*us.hessnatur.com/shop/glossary.action;jsessionid?letter=a*

Artificial resins are used to change the properties of a fiber. They are either stored in the fiber cavities or form a surface film on the fiber. Natural fibers lose their breathability and natural properties when treated with artificial resin. Resins containing formaldehyde are used, among

other things, for providing wool clothing with an anti-felt finish and cotton fabrics with a non-iron and low-crease finish. Artificial resins containing formaldehyde can cause skin irritation and are one of the most frequent contact allergens. Repeated contact with the skin can result in growing sensitivity to chemicals and ultimately to a visible skin complaint. The symptoms of contact eczema, for example, are itchiness and redness. They only occur, however, during contact with the allergenic and only at the point of contact.

### **Artificial silk**

*Dictionaryoftext00*

Fiber obtained from cellulose or other materials, through various ways; 1, the Chardonnet process dissolves cotton waste in nitric and sulphuric acids into nitro cellulose; this again is treated in ether, producing gun cotton in liquid form, which is pressed through small holes; as the ether evaporates during this pressure, a cellulose fiber is obtained, which afterward is denitrated. 2, in the viscose process, wood pulp is dissolved in caustic soda, the resulting salt is treated in carbon bisulphite, then dissolved in ammonia sulphate, which is pressed through small holes and rinsed. 3, the glanzstoff or cupiram' monium process, in which cellulose is dissolved in copper ammonium hydrate. 4, Vanduara silk made of chemically treated gelatine, rendering it insoluble.

*Polymer science dictionary, by Mark. s.m. Alger, Google books*

A name given to early man-made fibres, which were produced with a specific aim of resembling silk. They did so to the extent that they were produced as long continuous fibres. However, many present-day man-made fibres are not continuous and are not intended to resemble silk.

### **Artificial turf**

[Ca-bc.com/zip\\_internacional/usedmach/education/](http://Ca-bc.com/zip_internacional/usedmach/education/)

A manufactured carpet having the appearance of grass. Used to replace grass in sports arenas, yards, etc. (Also see RECREATIONAL SURFACES.)

*Wikipedia*

Artificial turf, or synthetic turf, is a man-made surface manufactured from synthetic materials, made to look like natural grass. It is most often used in arenas for sports that were originally or are normally played on grass. However, it is now being used on residential lawns and commercial applications as well.

### **Artificial weathering**

*About.com*

The process of exposing composites to continuous or repeated environmental conditions designed to simulate conditions encountered in actual outdoor exposure. Such conditions include temperature, humidity, moisture, light in the ultraviolet range, and direct water spray. The laboratory conditions are usually intensified to a degree greater than those normally encountered in actual outdoor conditions in order to decrease the time necessary to achieve significant results.

*Chemicalfabricsandfilm*

Exposure to laboratory conditions, which may be cyclic, involving changes in temperature, relative humidity, radiant energy, and any other elements found in the atmosphere in various geographical areas. Discussion: the laboratory conditions are usually intensified beyond those encountered in actual outdoor exposure in an attempt to achieve an accelerated effect.

*Fibreset*

Exposure to laboratory conditions, which may be cyclic, involving changes in temperature, relative humidity, radiant energy, and any other elements found in the atmosphere in various geographical areas.

*Polymer Technology Dictionary, by Tony Whelan*

The degradation of polymers caused by exposure to an artificial climate, or exposure in a laboratory to simulated weather conditions. The weathering resistance may be assessed by exposure of standard samples to selected light, for example, or to artificial rain in a test apparatus under specified conditions. Such conditions may include temperature, intensity of light, wavelength of light, orientation of the sample towards the light etc. The changes may be cyclic, involving changes in temperature, relative humidity, radiant energy, and any other element found in the atmosphere in various, but usually specified, geographic areas. The laboratory exposure conditions are usually intensified beyond those encountered in actual outdoor exposure, in an attempt to achieve accelerated effect (accelerated ageing). (See-Weathering.)

*Texworld*

Exposure to cyclic laboratory conditions involving changes in temperature, relative humidity and radiant energy, with or without direct water spray, in an attempt to produce changes in the material similar to those observed after long-term, continuous, outdoor exposure.

Note: The laboratory exposure conditions are usually intensified beyond those encountered in actual outdoor exposure in an attempt to achieve an accelerated effect. This term does not cover exposure to special conditions such as ozone, salt spray, industrial gases, etc.

*Whittington's Dictionary of Plastics, by James W. Carley*

The process of exposing plastics to continuous or repeated environmental conditions generated in the laboratory and designed to simulate conditions encountered in actual outdoor exposure. Such conditions include temperature, humidity, light in the ultraviolet range and direct water spray. Laboratory conditions are usually intensified to a degree greater than those normally encountered outdoors, in order to decrease the time required to achieve significant results.

## **Artificial wool**

*Barlick*

Is really a recovered waste product, and has grown to an important branch of the textile industry. A large quantity of cheap suits are made from these yarns, of which there are several varieties, known as mungo, shoddy, extract wool, etc. They are manufactured from rags and waste materials containing wool. Cotton, and even silk is found in some of them. (See also under Mungo, Shoddy, Extract Wool.)

*Dictionary of Textiles*

Artificial Wool 1, wool recovered from rags, the fibers are spun again; 2, various vegetable fibers, like jute or dha, are treated with chemicals to resemble wool in looks and feel. These fibers are usually mixed with real wool.

## **Asbestos**

*Dry goods*

A fibrous variety of a mineral substance, composed of separable filaments, with a silky luster. Its fibres are sometimes flexible and elastic, sometimes stiff and brittle, and when reduced to a powder are soft to the touch. It is incombustible, and the fine qualities have been spun and woven into gloves, shrouds, cloth for firemen's suits, lamp-wicks, roofs, floors and for various other fire-proofing purposes. Its feeble consistency has always been the chief obstacle to its

general use among textile fabrics. It is mined in Canada, Vermont, Virginia, South Carolina and on Staten Island, New York.

#### *All about fabrics*

A fibrous silicate mineral once used for making incombustible or fireproof articles. Now considered extremely dangerous.

#### *Beloved linens*

Fireproof fibre of mineral origin. Spun with cotton and woven. Cotton later burned away. Used for theater curtains and firemen's gloves.

#### *Ca-bc.com/zip\_internacional/usedmach/education/*

A nonmetallic mineral fiber, which is nonflammable. The fiber is woven into fabrics and used for theater curtains and industrial uses where flame-resistant materials are needed.

#### *Dictionaryoftext00*

A gray mineral which by softening in hot water can be separated into straight, lustrous fibers. Used for fireproof materials. It is difficult to spin and is not dyed. Its solution is sometimes used to render textiles noncombustible.

#### *Environmental Engineering Dictionary, edited by C. C. Lee*

Six naturally occurring fibrous minerals found in certain types of rock formations. Of the six, the minerals chrysolite, amosite and crocidolite have been most commonly used in building products. When mined and processed, asbestos is typically separated into very thin fibres. Because asbestos is strong, incombustible and corrosion-resistant, it was used in many commercial products beginning early in the 20<sup>th</sup> century and peaking in the period from World War II into the 70s. When inhaled in sufficient quantities, asbestos fibres can cause serious health problems.

#### *fibre2fashion*

a generic name used to describe a family of naturally occurring fibrous hydrated silicates divided on the basis of mineralogical features into serpentines and amphiboles. Six varieties were of commercial importance : serpentine: chrysotile, amphiboles: actinolite, asbestos grunerite (amosite) (feng), anthophyllite, crocidolite, tremolite, the six varieties are deemed to be asbestos only when they have a fibrous form., note: asbestos is no longer used because of the associated health risks.

#### *lrb.usace.army.mil/fusrap/glossary-ab.htm#a*

A strong and incombustible fiber widely used in the past for fireproofing and insulation. The small, buoyant fibres are easily inhaled or swallowed, causing a number of serious diseases including: asbestosis, a chronic disease of the lungs that makes breathing more and more difficult; cancer; and mesothelioma, a cancer (specific to asbestos exposure) of the membranes that line the chest and abdomen.

#### *Naftni rječnik – Perić*

(1) Mineral iz skupine azbesta (asbestos group), ponajprije krizotil (v. chrysotile) i neki vlaknasti varijeteti amfibola, osobito amozit (amosite), antofilit (anthophyllite) i krokidolit (crocidolite). Sinonimi: amianthus, asbestus, earth flax, mountain flax. (2) Komercijalni termin koji se primjenjuje za označavanje skupine vlaknastih silikatnih minerala koji se lako odvajaju na dugačka, tanka i čvrsta vlakna koja su elastična, toplinski otporna i kemijski inertna, s visokim elektroizolacijskim svojstvima i, prema tome, prikladna za uporabu (primjenu) gdje se zahtijeva negorivi, nevodljivi ili kemijski otporni materijal (proizvodnja užadi, odjeće, papira, boja, obloga za kočnice, ploča za brtvljenje, ljepenki za toplinsku izolaciju, punila, cementa i filtara). (3) Termin koji se strogo primjenjuje za vlaknasti varijetet minerala aktinolit (v. actinolite).

#### *Shsu.edu*

A naturally occurring fibrous mineral found in certain types of rock formations. The primary use of asbestos was as a fireproofing material, applied to structural steel members in



multistory commercial buildings to attain proper fire protection. With its resistance to heat, asbestos was able to keep the building structure from bending and warping if exposed to fire. After widespread use of asbestos, over a 15 to 25 year time span, a pattern of illness gradually began to occur in asbestos workers. Three diseases linked to asbestos exposure are asbestosis, a fibrous scarring of the lungs, lung cancer, and mesothelioma, a cancer of the lining of the chest or abdominal cavity.

*Tintoria.vago.com*

Fibre of silicate crystal filaments of various types that was used for its nonflammability, now discarded after the discovery of its cancerogenous effects.

*Wikipedia*

Asbestos is a naturally occurring silicate mineral with long, thin fibrous crystals. The word asbestos (ἄσβεστος) is derived from a Greek adjective meaning inextinguishable. The Greeks termed asbestos the miracle mineral because of its soft and pliant properties, as well as its ability to withstand heat. The inhalation of asbestos can be potentially lethal.

Asbestos is known to have toxicity. The inhalation of toxic asbestos fibers can cause serious illnesses, including malignant mesothelioma, lung cancer, and asbestosis (also called pneumoconiosis). Since the mid 1980s, many uses of asbestos have been banned in several countries. Asbestos became increasingly popular among manufacturers and builders in the late 19th century due to its resistance to heat, electricity and chemical damage, its sound absorption and tensile strength. When asbestos is used for its resistance to fire or heat, the fibers are often mixed with cement or woven into fabric or mats. Asbestos was used in some products for its heat resistance, and in the past was used on electric oven and hotplate wiring for its electrical insulation at elevated temperature, and in buildings for its flame-retardant and insulating properties, tensile strength, flexibility, and resistance to chemicals.

### **Asbestos insulation**

*Dictionary of Ceramic Science and Engineering, By Ian McColm*

A fibrous asbestos used as thermal insulation at temperatures above 815<sup>0</sup>C. Frequently bonded with clay and sodium silicate.

### **Asbestosis**

#### **Azbestoza**

*Environmental Engineering Dictionary, edited by C. C. Lee*

A disease associated with the inhalation of asbestos fibres. The disease makes breathing progressively more difficult and can be fatal.

### **Ascending chromatography**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

A separation technique in which the mobile phase of a mixture rises through the stationary phase due to capillary action.

### **Ascot**

*Ascotformalwear.com*

A tie with broad ends hanging from a knot, worn with a stick pin and wing tip shirt. Worn with a Cutaway jacket, usually for daytime weddings.

*Fashion encyclopedia*

The ascot was a wide scarf-like necktie popular with well-dressed British gentlemen in the second half of the nineteenth century. It was originally named after a racetrack, Ascot Heath in England, where the style was popularized by fashionable spectators attending the Royal

Ascot, an annual four-day horse race initiated by Queen Anne (1665–1714) in 1711. An ascot is sometimes called a cravat, though this word originated as a general term for any style of neckwear. In the United States the word ascot is synonymous with cravat. Man wearing red ascot. The ascot was a wide scarf-like necktie most popular with well-dressed British gentlemen in the second half of the nineteenth century. Painting by Paul Cezanne. Reproduced by permission of © . Commonly worn for business in the late nineteenth and early twentieth centuries, the ascot was considered more formal than the "four-in-hand" knotted tie, which resembles the modern necktie and became popular among men in the late nineteenth century. The ascot was generally made of black satin and fastened in the center with a jeweled stickpin. It was usually self-tied and might be puffed out in the center front and called a puffed ascot. It was typically worn with a winged collar tuxedo shirt. The ascot was similar in style to two other cravats of the period: the cross-over neckcloth of the 1840s, which was a simple scarf loosely tied around the neck, and the octagon of the 1860s, which featured four tabs arranged above a pin positioned at the center front of the neck. The ascot reached the height of popularity during the 1890s, when fashionable men began to adopt more colorful styles in neck-wear. It fell out of favor at the start of the 1900s when the bow tie came into fashion. In the twenty-first century the ascot is rarely worn except with very formal morning wear, to weddings, or at the Royal Ascot races. However, yachtsmen, jetsetters, or those trying to convey an aristocratic attitude continue to wear ascots for other occasions.

#### *Fashion glossary*

A necktie with wide ends, worn around the neck and looped under the chin. Part of formal dress, it is usually made of a plain fabric, often silk. The loop, or double knot is sometimes held in place by a pin or tack.

#### *Probertencyclopedia*

An ascot was a man's, wide ended, plain fabric, often silk, square ended cravat worn around the neck and looped under the chin as part of formal dress during the mid-19th century. During the late 20th century ascots were revived as women's attire.

#### *Snapfashun.com*

High, round neckline with long scarf attached at center back, brought around, and one end looped over the other, ends hanging loose. Also called a stock neckline or tie neck.

#### *Townetuxedo.com*

Accessory; a wide scarf or necktie knotted so that its broad ends are laid flat upon each other. Often pinned together with a pearl stickpin and usually worn with a cutaway tuxedo. Today all ascots are banded for ease of use.

#### *Tuxship.com*

a folded scarf tie that is knotted so the fabric ties lie flat on each other. Pinned together with a stickpin or pre-sewn. Traditionally worn with a vest and the cutaway coat.

#### *Wikipedia*

An ascot tie, or ascot, is a narrow neckband with wide pointed wings, traditionally made of pale gray patterned silk. This wide, formal tie is usually patterned, folded over, and fastened with a stickpin or tie tack. It is usually reserved for wear with morning dress for formal daytime weddings and worn with a cutaway morning coat and striped grey trousers. This type of dress cravat is made of a thicker, woven type of silk similar to a modern tie and is traditionally either grey or black. The ascot is descended from the earlier type of cravat widespread in the early nineteenth century, most notably during the age of Beau Brummell, made of heavily starched linen and elaborately tied around the neck. Later in the 1880s, amongst the upper-middle-class in Europe men began to wear a more loosely tied version for formal daytime events with daytime full dress in frock coats or with morning coats. It remains a feature of morning dress for weddings today. The Royal Ascot race meeting at the Ascot

Racecourse, gave the ascot its name, although such dress cravats were no longer worn with morning dress at the Royal Ascot races by the Edwardian era. The ascot was still commonly worn for business with morning dress in the late 19th and very early 20th centuries. In British English the more casual form is referred to as a day cravat to distinguish it from the highly formal dress cravat. It is made from a thinner woven silk that is more comfortable when worn against the skin, often with ornate and colourful printed patterns.

### **Ascot collar, Stock collar**

*Timberyard*

Ascot collar or stock collar, a very tall standing collar with the points turned up over the chin, to be worn with a cravat.

*Wikipedia*

a very tall standing collar with the points turned up over the chin, to be worn with a cravat.

### **Ash**

*Alken.murray.com/fuel.glossary.htm*

Inorganic residue remaining after ignition of combustible substances determined by definite prescribed methods.

*Elastoproxy.com*

The residue of mineral matter left when a material is subjected to high heat and all organic material is burned away.

*Environmental Engineering Dictionary, edited by C. C. Lee*

(1) The solid residue including both non-combustible inorganic (e.g. metal) and unburned organic (e.g. soot) residue that remains after the material has been incinerated. (2) Inorganic residue remaining after ignition of combustible substances. The analysis of ash for commonly determined major elements by prescribed methods for the oxides of silicon, aluminium, iron, titanium, phosphorus, calcium, sodium and potassium. Other elements, such as heavy metals may be included in these analyses. (3) The mineral content of a product remaining after combustion

### **Ash content**

*About.com*

The nonvolatile inorganic matter of a compound which remains after subjecting it to a high decomposition temperature.

*Encyclopedic Dictionary of Polymers, Volume 1 edited by Jan W. Gooch*

The solid residue remaining after a substance has been incinerated or heated to a temperature sufficient to drive off all volatile or combustible substances.

*Fibreiset*

The solid residue remaining after a reinforcing substance has been incinerated (or strongly heated).

*Merinoinnovation.com*

The residue of a scoured wool sample after it has been subjected to charring followed by heating to 800 degrees Celsius. It is expressed as a percentage of the sample mass and is taken to represent the dirt (sand and soil) not removed during scouring.

*Plastics Materials and Processes, by Charles A. Harper, Google books*

The residue remaining after controlled combustion of a material in a test to determine its inorganic material content. Ashing is the term used to describe the combustion process used in determining the ash content of a material.

*Polymer Technology Dictionary, by Tony Whelan*

The amount of inorganic material in a polymer compound. May be measured by strongly heating, for example to 750°C a known weight of the material in air. Ash content = weight of ash X 100 / initial weight of the material.

### **Ashik**

*Carpets & Rugs*

This is a diamond-shaped figure with serrated edges found primarily on Turkmen pieces and some Asian pile weaves.

### **Ashing**

#### **Obrada pepelom**

*Whittington's Dictionary of Plastics, by James W. Carley*

A finishing process used to produce a satin-like finish on plastic articles, or to remove cold spots or teardrops from irregular surfaces which cannot be reached by wet sanding. The part is applied to a loose muslin disc, loaded with wet ground pumice rotating at a lineal speed of about 20 m/s.

### **Aso oke cloth**

#### **Aso oke tkanina**

*Fashion encyclopedia*

Aso oke cloth is an intricately woven cloth used for ceremonial garments. Made by the Yoruba men of Nigeria, Aso oke cloth is decorated with elaborate patterns made from dyed strands of fabric that are woven into strips of cloth. These strips of cloth are sewn together to form larger pieces. Some Aso oke cloth, called "prestige cloth," has a lace-like appearance with intricate open patterns. Patterns and colors used for Aso oke cloth have special meanings. A purplish-red colored dye called allure is prized among the Yoruba. Some designs are specifically for women's garments and some are for men's. The cloth is used to make numerous garment styles, including skirts, shirts, and trousers. Many of the outfits made from Aso oke cloth reflect the strong influence of the Muslim religion in the area since the early nineteenth century, with headwraps and modest gowns being prevalent. The amount of fabric and the patterns used indicate the wealth of the wearer.

### **Aspect ratio**

*Ca-bc.com/zip\_internacional/usedmach/education/*

1. The ratio of length to diameter of a fiber or yarn bundle. 2. In tire production, the ratio of the height of the tire to its width. 3. In a rectangular structure, the ratio of the longer dimension to the shorter.

*Encyclopedic Dictionary of Polymers, Volume 1, edited by Jan W. Gooch*

(1) The ratio of length to diameter of a fibre or yarn bundle. (2) in tyre production, the ration of the height of the tyre to its width. (3) In a rectangular structure, the ratio of the longer dimension to the shorter one.

*icknowledge.com/glossary/a.html*

the depth or height of a feature divided by the width of the feature. A high aspect ratio indicates a feature is narrow relative to it's height or depth. Example high aspect ratio features would be, contacts that are narrow relative to their depth, trenches that are narrow relative to their depth or metal lines that are tall relative to their width.

*Nptel.iitm.ac.in*

In an essentially two-dimensional rectangular structure (e.g., a panel), the ratio of the long dimension to the short dimension. However, in compressive loading, it is sometimes considered to be the ratio of the load direction dimension to the transverse dimension. Also, in

fiber micro-mechanics, it is referred to as the ratio of length to diameter.

*Polymer science dictionary, by Mark. s.m. Alger, Google books*

The ratio of the major to the minor dimensions of a particle. In particular, for a fibre or rod-like particle, it is the length to diameter ratio. For an elliptical particle it is the ratio of the major to minor axis lengths. It is important to determining the effect of dispersed particles on the viscosity of a fluid and on the mechanical properties of a filled solid.

*Texworld*

1. The ratio of length to diameter of a fiber or yarn bundle. 2. In tire production the ratio of the height of the tire to its width. 3. In a rectangular structure the ratio of the longer dimension to the shorter.

*Wikipedia*

The aspect ratio of a shape is the ratio of its longer dimension to its shorter dimension. It may be applied to two characteristic dimensions of a three-dimensional shape, such as the ratio of the longest and shortest axis, or for symmetrical objects that are described by just two measurements, such as the length and diameter of a rod. The aspect ratio of a torus is the ratio of the major axis  $R$  to the minor axis  $r$ .

### **Aspen vest**

*Probertencyclopedia*

An aspen vest is an American waistcoat, usually made in suede with fur trim for warmth, with large pockets with rouleau fastenings and a yoke.

### **Aspergillus Niger**

#### **Aspergillus niger**

*The American Leather Chemist Association Dictionary*

One of the most common mold growths found on vegetable-tanned vats and on leather, usually greenish or blackish in color.

### **Asphalt overlay fabrics**

*Ca-bc.com/zip\_internacional/usedmach/education/*

Fabric systems installed between the old and new asphalt layers during pavement resurfacing. The fabric absorbs the tack coat sprayed on the old surface thus forming a permanent moisture barrier to protect the subgrade from strength loss due to water intrusion. The fabric system also helps retard reflective cracking by serving as a flexible layer to diffuse stress.

*Inda.org*

A type of geotextile fabric used in the resurfacing of older roads. In the process, the old layer

of road has a layer of tar sprayed on the surface and then the nonwoven asphalt overlay is put

on top of the surface while it is still tacky. Subsequently, a new asphalt surface is layered on

top. The nonwoven's purpose is to prevent water from seeping from below the surface to

degrade the surface and to spread the load of cars and trucks to a wider area.

#### **Assembler**

##### **Asembler, Asemblerski program**

*ISACA® Glossary of Terms English - Slovenian*

A program that takes as input a program written in assembly language and translates it into machine code or machine language.

#### **Assembling, Making-up**

*Needlework for schools, by Melita M Neal, Claudia A. Brown-Wilson, Lileth Edwards*

The unit method is the most widely used method of assembling garments. The garment is made unit by unit in a progressive sequence. The smaller units are completed first and then joined together to make larger units. The larger units are then joined to complete the garment. This method of construction is the most efficient for the following reasons: (1) minimal time is required for construction, (2) moving from simpler to complex procedures means that steps are clear, and (3) the techniques are easily understood because learning is gradual.

*wool.com/Making-Up\_Garment-construction\_Assembling.htm*

For jackets, the front components are combined with the facings and sewn together. The back part is combined between the front top and under parts, and the whole body is then made-up. The collar and both sleeve parts are then attached to the body, and the whole garment is then made-up. For trousers, a placket is attached to the front part, after which both back parts are combined and sewn together. These are then combined with both front parts and sewn together at the side of legs, after which the final stage is the attachment of the waist band and fly.

#### **Assembly**

##### **Sklop**

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

Group of materials or parts, including adhesive, which has been placed together for bonding, or which has been bonded together.

*Naftni rječnik – Perić*

**Oprema sastavljena od brojnih pojedinačnih elemenata (komada) koja se primjenjuje u određenu svrhu.**

#### **Assembly adhesive**

*vidi*

#### **Structural adhesive**

#### **Assembly beaming**

*Texworld*

The winding of warp yarn from several back or section beams (each containing part of the total number of ends) on to a weaver's beam.

#### **Assembly language**

##### **Asemblerski jezik**

*ISACA® Glossary of Terms English - Slovenian*

A low-level computer programming language which uses symbolic code and produces machine instructions.

### **Assembly line system, Production line system**

*answers.com/topic/assembly-line*

An arrangement of workers, machines, and equipment in which the product being assembled passes consecutively from operation to operation until completed. Also called production line.

*answers.com/topic/assembly-line/Britannica Concise Encyclopedia*

Industrial arrangement of machines, equipment, and workers for continuous flow of workpieces in mass-production operations. An assembly line is designed by determining the sequences of operations for manufacture of each component as well as the final product. Each movement of material is made as simple and short as possible, with no cross flow or backtracking. Work assignments, numbers of machines, and production rates are programmed so that all operations performed along the line are compatible. Automated assembly lines (*see* automation) consist entirely of machines run by other machines and are used in such continuous-process industries as petroleum refining and chemical manufacture and in many modern automobile-engine plants. *See also* Henry Ford, interchangeable parts, Taylorism.

*answers.com/topic/assembly-line/Columbia Encyclopedia*

manufacturing technique in which a product is carried by some form of mechanized conveyor among stations at which the various operations necessary to its assembly are performed. It is used to assemble quickly large numbers of a uniform product. Henry Ford is often credited with establishing the first assembly line for his Model T. So long as an assembly line's output is high, the cost per unit is relatively low. It is somewhat inflexible, however, as it must be designed and installed for a particular product. Also, the operations on the product usually must be performed in a sequence that is strictly ordered. A malfunction or shortage of parts that shuts down a single assembly station necessitates shutdown of the entire line. Traditional assembly lines had come under criticism from those concerned with their effects on workers, but industrial robots now perform many of the repetitive tasks. Recent variations on the assembly-line process, such as teams of workers responsible for multiple steps, have increased productivity and employee interest.

*fabricss.wordpress.com/2010/04/04/apparel-production-systemswholesale-denim-fabrics-in-china/*

Each operator is assigned to one operation only,

- Bundles of garment components are moved sequentially from operation to operation
- Bundles consist of garment parts needed to complete a specific operation or garment component.
- Some companies work with varied bundle sizes others with standard bundle sizes
- Bundles are assembled in cutting room where cut parts are matched.
- Bundle tickets consist of a master list of operations and corresponding coupons for each operation.
- Each bundle receives a ticket that identifies style#, size , shade and list of operations (is some cases)
- Bundles are assembled is cutting room where cut parts are matched
- Bundle receives a ticket that identifies style#, size, shade and list of operations.

There are two variations of the assembly line system being followed in the industries namely

- Progressive Bundle systems and
- Unit production system.

### **Assembly time**

*Encyclopedic Dictionary of Polymers, Volume 1 edited by Jan W. Gooch*

The time interval between the spreading of the adhesive on the adherend and the application of pressure or heat, or both, to the assembly. **Note**—For assemblies involving multiple layers or parts, the assembly time begins with the spreading of the adhesive on the first adherend. (1) Open assembly time is the time interval between the spreading of the adhesive on the adherend and the completion of assembly of the parts for bonding. (2) Closed assembly time is the time interval between completion of assembly of the parts for bonding and the application of pressure or heat, or both, to the assembly.

### **Assembly winding**

*Texmachinery*

The winding of two or more yarns as one on to a single package usually in preparation for a subsequent twisting process.

### **Assessment**

**Ocjena, Procjena, Vrednovanje**

*ISACA® Glossary of Terms English - Slovenian*

A broad review of the different aspects of a company or function that includes elements not covered by a structured assurance initiative. Scope Note: May include opportunities for reducing the costs of poor quality, employee perceptions on quality aspects, proposals to senior management on policy, goals, etc.

### **Assets**

**Imovina, Sredstvo**

*smallbiz.nsw.gov.au/start/glossary/pages/a.aspx*

are economic resources owned by business or company. Anything tangible or intangible and include cash in the bank, accounts receivable, shares, property or buildings, equipment, fixtures, stock or stock in production.

*investorwords.com/273/asset.html*

Any item of economic value owned by an individual or corporation, especially that which could be converted to cash. Examples are cash, securities, accounts receivable, inventory, office equipment, real estate, a car, and other property. On a balance sheet, assets are equal to the sum of liabilities, common stock, preferred stock, and retained earnings. From an accounting perspective, assets are divided into the following categories: current assets (cash and other liquid items), long-term assets (real estate, plant, equipment), prepaid and deferred assets (expenditures for future costs such as insurance, rent, interest), and intangible assets (trademarks, patents, copyrights, goodwill).

*ISACA® Glossary of Terms English - Slovenian*

Something of either tangible or intangible value that is worth protecting, including people, information, infrastructure, finances and reputation.

*nationalexpressgroup.com/nx1/investor/share\_services/industry\_glossary/inv\_terms/*

Fixed assets include land, machines and buildings; current assets consist of cash, money owed, stock, investments and work in progress; intangible assets are goodwill, trade marks, patents, etc; liquid assets are funds kept in cash or in a form that can be quickly and easily turned into cash.

*Wikipedia.org*

In business and accounting, **assets** are economic resources owned by business or company. Anything tangible or intangible that one possesses, usually considered as applicable to the payment of one's debts is considered an asset. Simplistically stated, assets are things of value that can be readily converted into cash (although cash itself is also considered an asset).<sup>[1]</sup> The balance sheet of a firm records the monetary<sup>[2]</sup> value of the assets owned by the firm. It is money and other valuables belonging to an individual or business.<sup>[3]</sup> Two major asset classes are tangible assets and intangible assets. Tangible assets contain various subclasses, including current assets and fixed assets.<sup>[4]</sup> Current assets include inventory, while fixed assets include



such items as buildings and equipment.<sup>[5]</sup> Intangible assets are nonphysical resources and rights that have a value to the firm because they give the firm some kind of advantage in the market place. Examples of intangible assets are goodwill, copyrights, trademarks, patents and computer programs,<sup>[5]</sup> and financial assets, including such items as accounts receivable, bonds and stocks.

### **Assignable cause**

#### **Uzrok pogreške**

*Polymer Technology Dictionary, by Tony Whelan*

An undesirable variation from manufacturing requirements which is due to error, for example, mechanical or human error. Such errors include incorrect settings, faulty materials, faulty machines and incorrect specifications.

### **Assimilative capacity**

#### **Asimilajski kapacitet, Sposobnost asimiliranja**

*Environmental Engineering Dictionary, edited by C. C. Lee*

The capacity of a natural body of water to receive wastewaters or toxic materials without deleterious effects and without damage to aquatic life or humans who consume the water.

### **Assisi embroidery, Assisi work, Assisi**

*About.com*

In Assisi Embroidery, also known as voided work, the design is left unstitched and the background is filled in. Simple cross stitch patterns, such as this Sunburst pattern are easily adapted as Assisi-style designs. Also known as voided work, Assisi embroidery is done by leaving the design unstitched and filling in the background. Most simple Cross Stitch patterns may be stitched as Assisi designs.

*Beloved linens*

From Assisi in Italy. Embroidery in which the designs themselves are left unworked and stand out in white from a solid background worked in cross\_stitches.

*Dreamspace.com*

The background is embroidered, leaving the design unstitched. Cross stitches are used to fill the background.

*Sewexciting.com*

This is a variation of cross-stitch. The stitches used are the same, but the principle of the design is reversed - as the background is embroidered and the pattern left plain and in outline.

*Smallbusinessbible.org*

Assisi embroidery is a type of embroidery founded in the Italian town of Assisi in around the 13th century. It is also known as voiding or negative embroidery because the background is filled in, while the motif itself is left empty. A cross stitch is usually used for the background, which is normally done in the traditional colors like red, blue, green, and gold. There are two ways to do Assisi embroidery, the old fashion way was to draw figures on the fabric free hand, while today the pattern is first constructed carefully on paper and then transferred onto the material you are working with.

*Wikipedia*

Assisi embroidery is a form of counted-thread embroidery based on an ancient Italian tradition where the background is filled with embroidery stitches and the main motifs are left void i.e. unstitched. The name is derived from the Italian town of Assisi where the modern form of the craft originated.

## **Assistant, Dyeing assistant, Dye assistant**

*Answers.com*

Material such as sodium sulfate added to a dye bath to control or promote the action of a textile dye.

*Complete technology book on textile, spinning, weaving, finishing and printing, by Niir Board*

A large variety of acids, alkalis and salts are used for various purposes in dyeing. The acids chiefly employed are sulphuric, acetic, and formic, all of which are used with acid dyes. Carbonate of soda (soda ash), caustic soda, and ammonia are the chief alkalis used, and sodium chloride (common salt), sodium sulphate (Glauber's salt) and many other salts are employed in various cases as additions to the dye-bath. The role of assistants is varied.

*Colour experience*

Substance added to a dyebath of print paste to aid the coloration process.

## **Astigmatism**

### **Astigmatizam**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Pogreška leće zbog različite zakrivljenosti u horizontalnoj i vertikalnoj ravnini.**

**Astigmatizam prouzročuje izobličenje slike.**

## **ASTM (The American Society for Testing and Materials)**

*antron capet and fibres*

One of the largest voluntary standards development organizations in the world. ASTM is a not-for-profit organization that provides a forum for the development and publication of voluntary consensus standards for materials, products, systems and services.

*Brantanofabrics.com*

A nonprofit organization that provides a voluntary consensus system for developing standards through committees composed of producers, engineers, academics, regulatory bodies and other stakeholders.

*sekisuiivoltek.com/company/glossary.php*

the ASTM develops standards for properties and performance of materials

## **Astrachan, Astrakhan, Astrakan**

*Beloved linens*

Wool coating made to imitate Astrachan or Karakul fur. Foundation cloth, knitted or woven of cotton or wool. Curly pile of mohair yarn slightly twisted. May resemble the close curl of Persian lamb fur. Good quality. Wears well. Uses: coats for men, women and children, caps, muffs, trimmings. Weave—pile (may have knit back). Width, 52".

*Ca-bc.com/zip\_internacional/usedmach/education/*

A thick knit or woven fabric with loops or curls on the face. The base yarns are usually cotton or wool and the loops are made with fibers such as mohair, wool, and certain manufactured fibers. The face simulated the pelt of the astrakhan lamb.

*Dry goods*

[From Astrakhana, a city and province in Russia] Originally in Russia this was a name given to skins having a short, curly wool - particularly the pelts obtained from young lambs from the province of Astrakhana. At present Astrakhan cloth is silk or worsted material with a long and closely curled pile, in imitation of the fur above mentioned, and is used for ladies' cloaks, dress trimming and men's clothing. Astrakhan wool trimming is made in 10-yard lengths, and in 3-inch, 4-inch and 5-inch widths, the price increasing with the width. It is a durable and showy trimming.

*Encyclopedia.com*

astrakhan [from Astrakhan ], pelt of the newborn Persian lamb, used like fur in garments, and also the woolen fabric woven to resemble real astrakhan. The cloth is woven on a cotton base entirely covered by a pile of closely curled mohair. Before being woven the mohair is wound on spindles and steamed to produce a tight, permanent curl.

#### *fibre2fashion*

a thick woven or knitted cloth often of wool with a surface of loops or curls, imitating the coat of an astrakhan lamb. Also called poodle cloth. Used for coats and trimming.

#### *Library*

a thick woven or knitted cloth often of wool with a surface of loops or curls, imitating the coat of an Astrakhan lamb. Also called poodle cloth. Used for coats and trimming.

#### *Textile dictionary*

Fibre: Wool. Sometimes made with a mohair warp to add lustre and curl to the surface. Poor grades often have cotton warp or back.

Fur: Luxuriant fur, curly and wavy. Most popular shade is brown. It is a caracul lambskin from the Astrakhan section of Russia.

Weave: Good grades woven with a pile weave and cut. Cheap grades are knitted.

Characteristics: Resembles astrakhan fur. Deep pile with curled loops. Durable and warm.

Uses: Coats, cloaks, trimmings and accessories.

#### *Vintage sewing woolens*

A woolen or silk material with a long, closely curled pile in imitation of real astrakhan. A most desirable material, producing considerable warmth. Used for coats for men, women, and children; also, for caps, muffs, scarfs.

### **Asymmetric**

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

The opposite of symmetric. Of such form that no point, line or plane exists about which opposite portions are exactly similar.

### **Asymmetric knots (Psrisan), Asymmetrical knot**

*Area-rug-tips.com*

Also know as the Persian knot or the Senneh knot, it allows a finer weave to be created. It is made by wrapping the yarn around one warp strand and then looping the yarn behind the second warp strand. This single knot is used in Iran, India, Turkey, Egypt and China.

#### *Area rugs*

A type of Oriental pile rug knot where only one of the two warps are entirely encircled. The asymmetrical (also known as Persian or Senneh Knot) is used in Iran, India, Turkey, Egypt and China. To form this knot, yarn is wrapped around one warp strand and then passed under the neighboring warp strand and brought back to the surface. With this type of knot a finer weave can be created.

#### *Carpets & Rugs*

Asymmetric knots also known as Turkish knots are generally used in northwestern,western, southwestern and some portion of northeastern IRAN(quochan). The structure of these rugs as you can see in the picture. Asymmetric knots may be open to the left or right.

*galleryfurniture.com/manual.*

Asymmetric knots, also known as Turkish knots, are generally used throughout Iran with the exception of the southeastern portion of Iran. Asymmetric knots will generally be open to the right or left. Note that the knot's wrap around can go above or below the vertical aspect.

*navajorugrepair.com/orientalterms.htm*

"Persian" or "Senneh" knot. A pile knotting technique where only one or the two warps is completely encircled.

## Asymmetric unit

### Asimetrična jedinica, Nesimetrična jedinica

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Najmanji dio jedinične ćelije kristala iz kojega se može izgraditi cijela jedinična ćelija i tako odrediti kristalna struktura primjenom simetrijskih operacija zadanih prostornom grupom Kristala.**

## Asymmetry

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

In molecular structure, an arrangement in which a particular carbon atom is joined to four different groups.

## Asymptotic freedom

### Asimptotska sloboda

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Svojstvo kvarkova da se ponašaju kao slobodne čestice na maloj međusobnoj udaljenosti.**

## Asynchronous Transfer Mode (ATM)

### Asinkroni način prijenosa (ANP)

*ISACA® Glossary of Terms English - Slovenian*

A high-bandwidth low-delay switching and multiplexing technology that allows integration of real-time voice and video as well as data. It is a data link layer protocol.

Scope Note: ATM is a protocol-independent transport mechanism. It allows high-speed data transfer rates at up to 155 Mbit/s. The acronym ATM should not be confused with the alternate usage for ATM, which refers to an automated teller machine.

## Atactic

### Ataktan

*Encyclopedic Dictionary of Polymers, Volume 1, edited by Jan W. Gooch*

Pertaining to a polymer in which the pendant side groups, as  $-\text{CH}_3$  in polypropylene are randomly located around the main chain. It can also be defined as the term for polymer tacticity, to indicate unsymmetrical and alternating substituent groups along a polymer chain.

## Atactic polymer

### Ataktni polimer

*Ca-bc.com/zip\_internacional/usedmach/education/*

A type of polymer molecule in which substituent groups or atoms are arranged randomly above and below the backbone chain of atoms, when the latter are all in the same plane (e.g., in polypropylene). (Also see ISOTACTIC POLYMER, SYNDIOTACTIC POLYMER, and TACTIC POLYMER.)

*ch.ic.ac.uk/vchemlib/mol/glossary/*

A polymer is atactic if the groups attached to the backbone are not arranged in any regular geometric pattern.

*Encyclopedic Dictionary of Polymers, Volume 1 edited by Jan W. Gooch*

Pertaining to a polymer in which the pendant side groups, as  $-\text{CH}_3$  in polypropylene are randomly located around the main chain. It can also be defined as the term for polymer tacticity, to indicate unsymmetrical and alternating substituent groups along a polymer chain.

*Encyclopedic Dictionary of Polymers, Volume 1, edited by Jan W. Gooch*

A polymer with molecules in which substituent groups or atoms are arranged at random around the backbone chain of atoms. The opposite of stereospecific polymer and isotactic polymer.

*Hrvatsko nazivlje polimerstva, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Pravilni polimer čije bočne skupine glavnoga molekulnog lanca zauzimaju nasumični položaj.**

*Polymer science dictionary, by Mark. s.m. Alger, Google books*

A polymer in which at least one chain atom of the repeat unit can exhibit stereochemical configurational isomerism, but in which there is no preference for one particular configuration isomer, so that a random distribution of isomers exist.

*Polymer Technology Dictionary, by Tony Whelan*

A polymer in which there is no regular, repeating structure. The repeat units along the polymer chain do not have the same configuration, that is, the groups of atoms do not have the same orientation in space. (See – Isotactic polymer, Syndiotactic polymer and Alpha olefin.)

*Polyolefin Fibres: Industrial and Medical Applications, edited by S C O Ugbolue*

An atactic polymer is defined as a linear polymer containing asymmetrically substituted carbon atoms in the repeating unit in the main chain, a planar projection of whose structure has the same substituents situated randomly to the one side or the other of the main chain.

*Textilesintelligence*

a type of polymer molecule in which groups of atoms are arranged randomly above and below the backbone chain of atoms, when the latter are arranged all in one plane.

*Wikipedia*

In atactic macromolecules the substituents are placed randomly along the chain. The percentage of meso diads is between 1 and 99%. With the aid of spectroscopic techniques such as NMR it is possible to pinpoint the composition of a polymer in terms of the percentages for each triad. Polymers that are formed by free-radical mechanisms such as polyvinylchloride are usually atactic. Due to their random nature atactic polymers are usually amorphous. In hemiisotactic macromolecules every other repeat unit has a random substituent. Atactic polymers are technologically very important. A good example is polystyrene (PS). If a special catalyst is used in its synthesis it is possible to obtain the syndiotactic version of this polymer, but most industrial polystyrene produced is atactic. The two materials have very different properties because the irregular structure of the atactic version makes it impossible for the polymer chains to stack in a regular fashion. The result is that, whereas syndiotactic PS is a semicrystalline material, the more common atactic version cannot crystallize and forms a glass instead. This example is quite general in that many polymers of economic importance are atactic glass formers.

### **Atacticity**

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

The degree of random location that the side chains of a molecule exhibit off the back-bone chain.

### **Athermal transformation**

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

A reaction that proceeds without thermal activation, as contrasted to isothermal transformation, which occurs at constant temperature.

### **Athletic bag**

*Designerhandbags101.com*

a soft, roomy bag used to carry sporting equipment and apparel to the gym.

### **Athletic socks**

*askandyaboutclothes.com/Clothes Articles/Secrets of SOCKcess.htm*

Athletic socks are about the weight of casual socks, but they usually have a cushioned-sole or some other feature specific to the sport for which they were designed. Usually, they're white

or white with colored stripes at top or with a logo. Athletic socks are mostly cotton, a natural fiber that lets your foot breathe and wicks away moisture.

High tech fabrics may be incorporated into socks to provide superior wicking properties, warmth, and blister avoidance.

Andy's Powder tip: If you use talc in your shoe, make sure it's in the shoe and not in your sock. Putting powder in your socks traps the moisture there.

Most Athletic socks are crew or mid-calf length, however for certain sports like running, an anklet (the shortest) is available. In other situations -- playing soccer, for instance -- over-the-calf is de rigueur.

*Hosieryassociation.com*

Hosiery designed for active sports, often having a ribbed striped top and plain foot construction. Usually knit of acrylic cotton, wool, or combinations thereof.

*onehanesplace.com/webapp/commerce/command/ExecMacro/info.d2w/report?info=hosieryglossary*

Socks designed for active sports, often having a ribbed top and plain foot construction.

Frequently includes a high percentage of cotton. May include performance features like extra cushioning or moisture wicking.

### **Athletic underwear**

*Clothingdictionary.com*

A wide range of underwear including bras, shorts, tights, etc that is generally worn during exercise or athletic activities. Athletic underwear may include wicking power, which draws moisture away from the body, compression for energy conservation and muscle support, mesh for ventilation, specific styles such as a racer back or tank top and stretch fabrics for snug support during athletic activity and giving a body enhancing appearance.

*femimage.com/beautyinsight\_LingerieGlossary101.htm*

Varied range of underwear that is generally worn for athletic pursuits: the gym, sports, running, biking etc. Some features of athletic underwear may include wicking power (draws moisture away from your body), compression (for energy conservation and muscle support), mesh (for ventilation), specific silhouettes (tank tops) and stretch (for body-hugging security during athletic activity and a body-conscious look for fit men and women).

### **Atlas**

*fabric names*

rich satin fabric

*fibre2fashion*

a warp knit fabric in which a set of yarns shifts diagonally one wale per course for several courses , then returns to the original position.

*Hand Book of Silk Technology, by Tammanna N. Sonwalkar*

(1) A term used in France, England, Germany and Austria for a highly finished silk fabric made in eight-harness satin weave. Used for dresses and cotton-back lining. Originally made in India in plain weave, in stripe or floral effect, in colours or gold. (2) A light-weight satin lining made with silk face and cotton back. Used for dresses.

*resil.com/c.htm*

Satin weave, rich fabric made from silk or man-made fibres Satin weave, rich fabric made from silk or man-made fibres. Used for dress fabrics, mainly evening wear. Atlas made with cotton weft, which is less expensive is used as a lining fabric. See also Single bar atlas fabric, and Two bar atlas fabric.

*Library*

A warp knit fabric in which a set of yarns shifts diagonally one wale per course for several courses, then returns to the original position.

*sava.in/textile-glossary-collection/FC-fabrics*

Warp knitted fabric characterized by having one or more sets of yarns traversing in a diagonal manner, one wale per course for a number of courses, returning in the same manner to the original wale. See also single atlas and double atlas.

*Texsite*

midweight silky satin-weave fabric; slightly stiff, smooth and very glossy. Used for ladies' dresses and linings. Name derived from the use of atlas/satin weaves.]

### **ATLAS (Automatic Tester of Length and Strength)**

*Merinoinnovation.com*

A computer-controlled instrument which measures the staple length, staple strength and position of break of individual staples. In operation, a continuous belt conveys each staple between an array of lights and an array of photocells, which detects the ends of the staple and enables the length (in millimeters, mm) to be measured. The staple is then grasped by two sets of jaws and broken. The force required is measured in Newtons. The two pieces of the broken staple are individually collected and weighed and, from the masses, lengths and core test yield, the staple linear density (thickness) is calculated and expressed in kilotex; the staple strength is expressed as Newtowns / kilotex (N/ktex)/ The masses of the two pieces are also used to calculate the position of break.

### **ATMI (American Textile Manufacturers Institute)**

*Brentanofabrics.com*

The U.S. textile industry's trade association for the domestic textile industry; activities encompass government relations, international trade, product and administrative services, communications and economic information.

### **Atmosphere**

#### **Atmosfera**

*Polymer Technology Dictionary, by Tony Whelan*

(1) In chemical terms, it means the gaseous envelope or medium in which a reaction is occurring. (2) A unit of pressure which is the normal pressure of air at sea level, equivalent to approximately 101,33 Pa or 76 mm Hg or 14,72 psi. Abbreviation is atm.

### **Atmosphere for preconditioning**

*Bisfa.org*

The atmosphere used to partially dry the material before further treatment or conditioning.

The atmosphere for preconditioning shall be maintained within the following limits :

Humidity : 5 - 25 %

Temperature : not exceeding 50 °C

### **Atmosphere for testing**

*fibre2fashion*

(a) standard temperate atmosphere : an atmosphere at the prevailing barometric pressure with a relative humidity of 65% and a temperature of 20 °C, (b) standard tropical atmosphere : an atmosphere at the prevailing barometric pressure with a relative humidity of 65% and a temperature of 27 °C

## **Atmospheric conditions**

*Ca-bc.com/zip\_internacional/usedmach/education/*

In general, the relative humidity, barometric pressure, and temperature existing at a given time.

## **Atmospheric fading**

### **Atmosfersko izbljeđivanje**

*HAND BOOK ON GLOSSARY OF TEXTILE TERMS, BUREAU OF INDIAN STANDARDS NEW DELHI 110 002, UDC 001.4/677 (021) ISBN 81-7061-009-5*

The fading of colour of dyed or printed textile material by the action of certain acidic gases.

## **Atmospheric fading test**

*antron capet and fibres*

A test that indicates a change of shade or hue of dyed fabric caused by a chemical reaction between certain dyes and acid gases. Recommended test methods for carpets (AATCC 129 - Ozone and AATCC 164 - Oxides of Nitrogen) would specify a minimum rating, after two cycles, of no less than International Gray Scale for Color Change rating of 3.

*qcfocus*

a test method for dyed fabric that indicates its ability to maintain shade and hue color. A rating of no less than 3 is desirable.

*staticworx.com/esd-flooring-static-control-terms/abrasion\_resistance-axminster.php*

A test that indicates a change of shade or hue of dyed fabric caused by a chemical reaction between certain dyes and acid gases. Recommended test methods for carpets (AATCC 129 - Ozone and AATCC 164 - Oxides of Nitrogen) would specify a minimum rating, after two cycles, of no less than International Gray Scale for Color Change rating of 3.

## **Atmospheric pressure**

### **Atmosferski tlak**

*Education.vic.gov.au*

Atmospheric pressure is the weight force exerted on an area by the weight of a vertical column of air rising above the surface area to the upper reaches of the Earth's atmosphere. Sometimes referred to as 'barometric pressure' or simply as 'air pressure' it varies due to changes in local weather conditions. At sea level it is approximately equal to a weight of 1kg per square cm or 10 tonnes per square metre. We only notice the effects of this potentially very large force when the air is acting on only one side of a surface.

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Tlak zraka iznad Zemljine površine. Atmosferski tlaki opada s visinom. Nastaje zbog težine zraka iznad neke površine i jednak je omjeru težine stupca zraka i ploštine.**

*Naftni rječnik – Perić*

Tlak koji se očituje na površini Zemlje usljed težine stupca zraka u atmosferi. Na razini mora jednak je 101.325 paskala (1,01325 bar) ili približno 14,7 psi ili 760 mm stupca žive.

Sinonim: barometric pressure; v. ga(u)ge pressure.

*pneumatic-source.com/resources/glossary/a.shtml*

Weight of the earth's atmosphere over a unit area of the earth's surface, measured with a mercury barometer at sea level. which corresponds to the pressure required to lift a column of mercury 760 mm.

## **Atom**

### **Atom**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Najmanji dio nekoga kemijskog elementa koji može samostalno postojati zadržavajući**



**svojstva toga elementa. Atom je sastavljen od pozitivno nabijene atomske jezgre koja se nalazi u središtu i elektronskoga omotača koji je okružuje.**

## **Atom trajectory**

### **Atomska staza**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Krivulja po kojoj se giba atom.**

## **Atomic absorption spectroscopy(AA)**

### **Atomska apsorpcijska spektroskopija**

*Chemistrydaily*

Atomic absorption spectroscopy in analytical chemistry is a technique for determining the concentration of a particular metal element within a sample. Atomic Absorbtion Spectroscopy can be used to analyse the concentration of over 62 different metals in a solution.

*Elchem*

Atomic-absorption (AA) spectroscopy uses the absorption of light to measure the concentration of gas-phase atoms. Since samples are usually liquids or solids, the analyte atoms or ions must be vaporized in a flame or graphite furnace. The atoms absorb ultraviolet or visible light and make transitions to higher electronic energy levels. The analyte concentration is determined from the amount of absorption. Applying the Beer-Lambert law directly in AA spectroscopy is difficult due to variations in the atomization efficiency from the sample matrix, and nonuniformity of concentration and path length of analyte atoms (in graphite furnace AA). Concentration measurements are usually determined from a working curve after calibrating the instrument with standards of known concentration.

*Environmental Engineering Dictionary, edited by C. C. Lee*

An atomic absorption spectroscopy is performed by electrically stimulating light emissions from a particular element, used to detect the amount of that specific element in samples.

*fire.org.uk/glossary.htm*

An analytical technique, used to determine the elemental composition and concentration of many metals and other inorganic elements. The material being analysed, generally in solution, is atomised, or broken up into individual atoms, usually by the action of extreme heat in a flame or small furnace. The ability of the atomised material to absorb characteristic wavelengths of visible or ultraviolet light is then measured using a spectrophotometer.

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Spektroskopija za kvalitativno i kvantitativno određivanje kemijskoga sastava uzorka prevedena u plinovito stanje.**

*Spektroskopske metode, hr*

Kvantitativna metoda za određivanje koncentracije pojedinih metala u otopini. Za atomiziranje uzoraka najčešće se koristi plamen, iako su u uporabi i druge metode, npr. grafitna peč. Analizirani metal je potrebno provesti u atomski oblik i to se postiže u tri koraka: (1) desolvacija – isparavanje otapala, ostatak je suhi uzorak, (2) vaporizacija – suhi i kruti uzorak pretvara se u plin i (3) volatilizacija – komponente koje tvore uzorak prevode se u slobodne atome. Svjetlost koja je usmjerena na plamen nastaje u lampi. Unutar lampe nalazi se katoda od metala koji se pobuđuje, te anoda. Atomi metala u katodi pobuđuju se visokim naponom te emitiraju svjetlost točno određenog spektra. Tip lampe ovisi o analiziranom uzorku, npr. ako želimo odrediti koncentraciju bakra u otopini koristit će se bakrena katoda. Uzorak se atomizira u plamenu kroz koji prolazi svjetlost na putu prema detektoru. Elektroni analiziranog metala mogu se pobuditi apsorpiranjem točno određenih paketa energije (kvanti) karakterističnih za pojedine elektronske prijelaze. Količina energija koja ulazi u plamen je poznata, a ona koja izlazi bilježi se detektorom. Na osnovi toga moguće je izračunati koliko se elektronskih prijelaza dogodilo pri prolasku kroz analizirani uzorak, tj. moguće je odrediti koncentraciju analiziranog metala. Za atomiziranje uzorka najčešće se koristi plamen (analiziranje uzoraka u otopini), iako su u iupotrebi i druge metoda, kao npr. grafitna peč (analiziranje uzoraka u otopini, emulziji i čvrstih uzoraka. Hidridnom tehnikom određuju se As, Se, Sb, Te, Bi i Sn.

*Texacoursa*

Measures the radiation absorbed by chemically unbound atoms by analyzing the transmitted energy relative to the incident energy at each frequency. The procedure consists of diluting the fluid sample with methyl isobutyl ketone (MIBK) and directly aspirating the solution. The actual process of atomization involves reducing the solution to a fine spray, dissolving it, and finally vaporizing it with a flame. The vaporization of the metal particles depends upon their time in the flame, the flame temperature, and the composition of the flame gas. The spectrum occurs because atoms in the vapor state can absorb radiation at certain well-defined characteristic wave lengths. The wave length bands absorbed are very narrow and differ for each element. In addition, the absorption of radiant energy by electronic transitions from ground to excited state is essentially and absolute measure of the number of atoms in the flame and is, therefore, the concentration of the element in a sample.

*Weather.nmu*

The study of absorption spectra by means of passing electromagnetic radiation through an atomic medium that is selectively absorbing; this produces pure electronic transitions free from vibrational and rotational transitions

*Wikipedia*

In analytical chemistry, atomic absorption spectroscopy is a technique for determining the concentration of a particular metal element in a sample.[1] The technique can be used to analyze the concentration of over 62 different metals in a solution.

Although atomic absorption spectroscopy dates to the nineteenth century, the modern form was largely developed during the 1950s by a team of Australian chemists. They were led by Alan Walsh and worked at the CSIRO (Commonwealth Science and Industry Research Organisation) Division of Chemical Physics in Melbourne, Australia.

## **Atomic clock**

### **Atomski sat**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Uređaj za mjerenje vremena s pomoću frekvencije zračenja upijena ili otpuštena pri atomskim prijelazima.**

## **Atomic coordinates**

### **Atomske koordinate**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Sastavnice vektora prostornoga položaja atoma u kristalu odnosno u jediničnoj ćeliji kristala smjerom bridova jedinične ćelije kristala.**

## **Atomic emission spectroscopy (AE)**

*Britannica*

..to emit radiation when exposed to the heat in a flame. The analytical technique that measures the wavelength and/or the intensity of emitted radiation from a flame is flame emission spectrometry. If electrical energy in the form of a spark or an arc is used to excite the analyte prior to measuring the intensity of emitted radiation, the method is atomic emission spectrometry.

*Elchem*

Atomic emission spectroscopy (AES or OES) uses quantitative measurement of the optical emission from excited atoms to determine analyte concentration. Analyte atoms in solution are aspirated into the excitation region where they are desolvated, vaporized, and atomized by a flame, discharge, or plasma. These high-temperature atomization sources provide sufficient energy to promote the atoms into high energy levels. The atoms decay back to lower levels by emitting light. Since the transitions are between distinct atomic energy levels, the emission lines in the spectra are narrow. The spectra of multi-elemental samples can be very congested,

and spectral separation of nearby atomic transitions requires a high-resolution spectrometer. Since all atoms in a sample are excited simultaneously, they can be detected simultaneously, and is the major advantage of AES compared to atomic-absorption (AA) spectroscopy.

*Fluidlife*

This method uses flame excitation; atoms are excited from the heat of the flame to emit light. This method commonly uses a total consumption burner with a round burning outlet. A higher temperature flame than atomic absorption spectroscopy (AA) is typically used to produce excitation of analyte atoms. Since the heat of the flame excites analyte atoms, no special elemental lamps to shine into the flame are needed. A high resolution polychromator can be used to produce an emission intensity vs . wavelength spectrum over a range of wavelengths showing multiple element excitation lines, meaning multiple elements can be detected in one run. Alternatively, a monochromator can be set at one wavelength to concentrate on analysis of a single element at a certain emission line.

*Wikipedia*

Atomic emission spectroscopy (AES) is a method of chemical analysis that uses the intensity of light emitted from a flame, plasma, arc, or spark at a particular wavelength to determine the quantity of an element in a sample. The wavelength of the atomic spectral line gives the identity of the element while the intensity of the emitted light is proportional to the number of atoms of the element.

## **Atomic force microscope**

*Azom*

Atomic force microscopes (AFM) are extremely high-resolution scanning probe microscopes, with demonstrated resolution of fractions of a nanometer, more than 1000 times better than the optical diffraction limit. Applications of AFM and other types of scanning probe microscopy continue to grow rapidly in number and include biological materials (e.g., studying DNA structure), polymeric materials (e.g., studying morphology, mechanical response, and thermal transitions), and semiconductors (e.g., detecting defects). In particular, AFM can be utilized to evaluate the surface quality of products such as contact lenses, optical components (mirrors, beamsplitters, etc.), and semiconductor wafers after various cleaning, etching, or other manufacturing processes.

*Wikipedia*

The atomic force microscope (AFM) or scanning force microscope (SFM) is a very high-resolution type of scanning probe microscope, with demonstrated resolution of fractions of a nanometer, more than 1000 times better than the optical diffraction limit. The precursor to the AFM, the scanning tunneling microscope, was developed by Gerd Binnig and Heinrich Rohrer in the early 1980s, a development that earned them the Nobel Prize for Physics in 1986. Binnig, Quate and Gerber invented the first AFM in 1986. The AFM is one of the foremost tools for imaging, measuring and manipulating matter at the nanoscale. The information is gathered by "feeling" the surface with a mechanical probe. Piezoelectric elements that facilitate tiny but accurate and precise movements on (electronic) command enable the very precise scanning.

## **Atomic force microscopy**

### **Mikroskopija atomskom silom**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Mikroskopija za istraživanje površine uzorka s pomoću atomske sile između površine i atoma probe.**

## **Atomic mass**

**Atomska masa, Masa atoma**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

The mass of an atom or molecule as expressed in atomic mass units, using a scale in which the most abundant isotope of carbon has a mass of 12.

*answers.com/topic/atomic-mass, Sci-tech encyclopedia*

The mass of an atom or molecule on a scale where the mass of a carbon-12 ( $^{12}\text{C}$ ) atom is exactly 12.0. The mass of any atom is approximately equal to the total number of its protons and neutrons multiplied by the atomic mass unit,  $u = 1.6605397 \times 10^{-24}$  gram. (Electrons are much lighter, about 0.0005486 u.) No atom differs from this simple formula by more than 1%, and stable atoms heavier than helium all lie within 0.3%.

*Education.vic.gov.au*

The atomic mass is the sum of the individual masses of all the protons and neutrons found in the nucleus of an atom. Because the mass of an individual atom is so small it is more convenient to express it as a relative mass using the mass of a carbon 12 atom as equivalent to 12 units of atomic mass.

*findhealer.com/glossary/A.php3*

The average atomic mass of an element compared to 1/12 the mass of carbon 12.

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**(1) Masa jednoga mola nekoga kemijskog elementa ili općenito tvari sastavljene od istovrsnih atoma, umnožak relativne atomske mase tvari, Avogadrove konstante i atomske jedinice mase. Kratica: (M). Istovrsna veličina za molekulu je molna masa. (2) Masa pojedinačnoga atoma jednaka zbroju mase atomske jezgre i masa svih elektrona u tome atomu. Masa atoma jednaka je omjeru atomske mase i Avogadrove konstante. SIMBOL:  $m_a$**

### **Atomic mass unit**

#### **Atomska masena jedinica**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

A unit of mass convenient for describing the masses of atoms and molecules. The standard atomic mass unit is 1/12 of the mass of a carbon atom with mass number 12.

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Dopuštena izvansustavna jedinica mase koja je jednaka dvanaestini mase atoma ugljika C12.**

*Polymer Technology Dictionary, by Tony Whelan*

Also known as dalton. A unit used to express the mass of an individual isotope of an element and which is based on the isotope of carbon-12. It is 1/12 of the mass of an atom of carbon-12, approximately equal to  $1,7 \times 10^{-24}$ g.

### **Atomic nucleus**

#### **Atomska jezgra**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Pozitivno nabijena čestica koja se nalazi u središtu atoma, sastavljena je od Z protona i N neutrona koje na okupu drži jako međudjelovanje. Promjer je atomske jezgre oko 100 000 puta manji od promjera atoma.**

### **Atomic number**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

The number, denoted by the letter Z, of protons in the nucleus of an atom. This number uniquely characterises a nuclear species and determines its place in the periodic table. The atomic number is written as a subscript before the elemental symbol, thus  ${}_{92}\text{U}$ .

*Encyclopedic Dictionary of Polymers, Volume 1 edited by Jan W. Gooch*

The number (Z) of protons with the atomic nucleus. The electrical charge of these protons determines the number and arrangement of the outer electrons of the atom and thereby the chemical and physical properties of the element.

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

The number of electrons orbiting around the nucleus of an atom.

*nhml.com/resources\_NHML\_Definitions.cfm*

The number of elementary positive charges (protons) contained within the nucleus of an atom. For an electrically neutral atom, the number of planetary electrons is also given by the atomic number.

*Theleavingcert.com*

The atomic number corresponds to the number of protons in the nucleus of an atom of that element. It also corresponds to the number of electrons in the neutral atom.

## Atomic optics

### Atomska optika

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Tehnika kojom se pojedinačnim atomima i atomskim snopovima može manipulirati kao fotonima i svjetlosnim snopovima u konvencionalnoj optici. Atomska optika rabi lasere i strukture nano-dimenzija (difrakcijske rešetke i leće) za reflektiranje, difraktiranje i fokusiranje atomskih snopova.**

## Atomic orbital

### Atomska orbitala

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

(1) The set of quantum numbers for an electron in an atom. (2) The region of high probability that is occupied by an individual electron as it travels with a wavelike motion in a 3D space around a nucleus. It is an indicator of the electron's energy level.

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Realne linearne kombinacije kompleksnih rješenja Schrödingerove kvantnomehaničke jednačbe za prostornu valnu funkciju elektrona u atomu.**

## Atomic physics

### Atomska fizika

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

A branch of physics primarily devoted to the study of the structures and energies of atoms and molecules.

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Grana kvantne fizike koja istražuje međudjelovanje elektrona i jezgre unutar atoma i pobuđena stanja elektrona u elektronskome omotaču atoma.**

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

The branch of science concerned with the structures of the atoms, the characteristics and properties of the elementary particles of which an atom is composed, the arrangement of the energy state of the atoms, and the processes involved in the interactions of radiant energy with matter.

**Atomic pile**

*vidi*

**Nuclear reactor**

## Atomic probe

### Atomska proba, Atomska sonda

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Metoda kojom se električnim pulsom izbojem skida sloj po sloj atoma uzorka u obliku šiljka radi dobivanja atomske strukture površine uzorka.**

**Atomic reactor**

*vidi*

**Nuclear reactor**

## **Atomic spectroscopy**

### **Atomska spektroskopija**

*Optička spektroskopija*

Proučava stanja i prijelaze među njima za mikrosistem sastavljen od teške pozitivne jezgre i elektrona, koji se kreću u kulonskom polju. Red veličine za razmak energijskih nivoa jest od elektronvolta do kiloelektronvolta.

## **Atomic time**

### **Atomsko vrijeme**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Mjerenje vremena korištenjem atomskih rezonancija. Prijelazna vremena između hiperfinih razina izotopa cezija<sup>133</sup>Cs prihvaćena su kao međunarodni standard za definiciju sekunde.**

## **Atomic weight**

*answers.com/topic/atomic-weight, Columbia encyclopedia*

mean (weighted average) of the masses of all the naturally occurring isotopes of a chemical element, as contrasted with atomic mass, which is the mass of any individual isotope.

*chemistry.about.com/od/chemistryglossary/a/atomicweightdef.htm*

The average mass of atoms of an element, calculated using the relative abundance of isotopes in a naturally-occurring element. It is the weighted average of the masses of naturally-occurring isotopes.

*Environmental Engineering Dictionary, edited by C. C. Lee*

The number expressing the ratio of the weight of one atom to that of another. Since the atomic weight is nothing more than a relative weight, the numerical value must be obtained with reference to some convenient standard. The modern chemical atomic weight scale uses the oxygen atom as the standard, giving it a weight scale of 16.000. The atomic weight of hydrogen is 1.0, of sulphur 32, of iron 56, etc. (see – Molecular weight).

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

The mean weight of an atom of an element in relation to one atom of carbon isotope, having a standard weight of 12,0.

*ieer.org/clsroom/glossary.html*

The nominal atomic weight of an isotope is given by the sum of the number of neutrons and protons in each nucleus. The exact atomic weight differs fractionally from that whole number, because neutrons are slightly heavier than protons and the mass of the nucleus is also affected by the binding energy.

*nhml.com/resources\_NHML\_Definitions.cfm*

A number assigned to each chemical element that specifies the average mass of its atoms.

Because an element may consist of two or more isotopes, each having atoms with well defined but differing masses, the atomic weight of each element is the average of the masses of its naturally occurring isotopes weighted by the relative proportions of those isotopes.

*Wikipedia.org*

Atomic weight (symbol: Ar) is a dimensionless physical quantity, the ratio of the average mass of atoms of an element (from a given source) to 1/12 of the mass of an atom of carbon-12.[1][2] The term is usually used, without further qualification, to refer to the standard atomic weights published at regular intervals by the International Union of Pure and Applied Chemistry (IUPAC)[3][4] and which are intended to be applicable to normal laboratory materials. These standard atomic weights are reprinted in a wide variety of textbooks, commercial catalogues, wallcharts etc, and in the table below. The fact "relative atomic mass" may also be used to describe this physical quantity, and indeed the continued use of the term

"atomic weight" has attracted considerable controversy since at least the 1960s[5] (see below). Atomic weights, unlike atomic masses (the masses of individual atoms), are not physical constants and vary from sample to sample. Nevertheless, they are sufficiently constant in "normal" samples to be of fundamental importance in chemistry.

### **Atomisation, Atomizing**

#### **Atomizacija, Raspršivanje**

*Glossary of Paint and Coatings Terminology, M. Pavlič, Ljubljana 2002.*

The formation of tiny liquid droplets in the course of spraying a coating.

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

The process of converting liquids and solids into a fine spray, minute particles or fine dust.

*Concise dictionary of material science, by Vladimir Novikov*

Procedure for obtaining small solid droplets from melt, the droplets being ultra-fine grained because the cooling rate during their solidification is  $\sim 10^3$  K/s. They are used for producing massive articles by consolidating and sintering.

### **Atomise**

#### **Atomizirati, Raspršivati**

*Environmental Engineering Dictionary, edited by C. C. Lee*

To divide a liquid into extremely minute particles, either by impact with a jet of steam or compressed air, or by passage through a mechanical device.

### **Attached cushion backing system, Attached cushion**

*antron carpet and fibres*

Padding, such as foam rubber or polyurethane, that is made as an integral part of the backing.

*Construction*

a resilient material adhered to the back of a carpet to provide additional padding, dimensional stability and thickness. Attached cushion is often made of foam, PVC, and urethane.

*eaglemat.net/images/wp/carpet-glossary.pdf*

Cushion material permanently bonded to the back of carpet and rugs by the manufacturer, usually made of synthetic rubber foam or polyurethane. Attached cushion provides added comfort, increased performance, and the benefits of a direct-glue installation.

*Enviro-solution.com*

Cushion permanently bonded to the backs of carpets and rugs by the manufacturer. Most often comprised of synthetic rubber foam or polyurethane foam.

*Jabaras.com*

A cushioning material, such as foam, rubber, urethane, PVC, etc. adhered to the back side of a carpet to provide additional dimensional stability, thickness and padding.

### **Attenuation**

#### **Atenuacija, Prigušenje, Prigušivanje, Oslabljenje, Slabljenje, Smanjenje, Smanjivanje, Umanjenje, Umanjivanje; Gašenje, Gušenje, Opadanje, Pad; Proređivanje, Razrjeđivanje, Stanjenje,**

*composite.about.com/library/glossary/a/bldef-a453.htm*

The process of making thin and slender, as applied to the formation of fiber from molten glass.

*Environmental Engineering Dictionary, edited by C. C. Lee*

(1) A process of converting and destroying a chemical compound as it passes through layers of soil or rock. (2) The process by which a compound is reduced in concentration with distance and time through absorption, adsorption, degradation, dilution, diffusion, dispersion and/or chemical or biological transformation.

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Postupni gubitak intenziteta valne pojave pri prolasku kroz sredstvo.**

*Plastics Materials and Processes, by Charles A. Harper, Google books*

As used in fibre optics, attenuation is the diminution of optical power in an optical waveguide occurring as a result of radiation losses. The diminution occurs over time and distance. Such losses are mainly caused by

### **Attenuator chain**

#### **Prigušni niz**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

### **Attractive force**

*education.vic.gov.au/studentlearning/teachingresources/science/scicontinuum/sciglossaryak.htm*

'Attractive force' is a term applied to non contact forces which result in objects being 'drawn together'. These forces may be electrostatic, magnetic or gravitational. The attractive forces between atoms and molecules that hold liquid and solid particles together are electrostatic.

### **Attribute sampling**

#### **Uzorkovanje svojstava**

*Ian J.McColm: Dictionary of Ceramic Science and Engineering, III Edition*

A method of quality control inspection in which samples are classified only as passable or defective.

*ISACA® Glossary of Terms English - Slovenian*

An audit technique used to select items from a population for audit testing purposes based on selecting all those items that have certain attributes or characteristics (such as all items over a certain size)

### **Attrition**

*Environmental Engineering Dictionary, edited by C. C. Lee*

Wearing or grinding down of a substance by friction. Dust from such processes contributes to air pollution.

*Ian J.McColm: Dictionary of Ceramic Science and Engineering, III Edition*

Wear and disintegration of a surface by rubbing or friction.

### **Attrition mills**

*Answers.com*

A machine in which materials are pulverized between two toothed metal disks rotating in opposite directions.

*Ca-bc.com/zip\_internacional/usedmach/education/*

Machines for reducing materials into smaller particles by grinding down by friction. In the manufacture of acetate and triacetate fibers, equipment used in shredding pulp prior to acetylation.

### **Atwood's machine**

#### **Atwoodov uređaj**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Uređaj s kolotutom preko kojega je prebačena nerastezljiva nit na čijim su krajevima obješena dva utega. Svrha mu je promatranje i mjerenje jednoliko ubrzanoga gibanja s ubrzanjem manjim od ubrzanja slobodnoga pada.**

### **Aubusson, Aubusson rug**

*Area rugs*



Style of rug that originated in France in the 15th century. Aubusson evolved into several main styles over the course of the next four centuries, including popular Antoinette, Josephine and Maison patterns. Aubusson were originally flat-weave rugs, usually featuring a floral medallion and pastel colors, but today these rug patterns have been adapted for pile rugs.

#### *Beloved linens*

(Fr. pr. o-bus-sone). Carpet made in Aubusson, France on hand looms. A kind of tapestry.

#### *Britannica*

Floor covering, usually of considerable size, handwoven at the villages of Aubusson and Felletin, in the département of Creuse in central France. Workshops were established in 1743 to manufacture pile carpets primarily for the nobility, to whom the Savonnerie court production was not available. Aubusson carpets were, however, also made for the royal residences. Soon after the production of carpets began at Aubusson, the pileless tapestry technique previously in use in this district was adopted for so many of the carpets that the word Aubusson has become synonymous with a flat-woven French carpet, and it is not generally realized that piled rugs in numbers have been made there.

#### *Carpets & Rugs*

Fine flat carpets woven in France from the 15th to 19th Centuries. They were derived from Moorish weaving with the assistance of Architects and Artists of the royal court. French design flat weave rug normally with a floral center medallion and pastel colors. Originally made in FRANCE as a pileless carpet, usually Aubussons have a floral medallion in pastel colors. The designs of these rugs have also been adapted to pile carpets and are now woven in India and China.

#### *chezshazz dictionary*

A scenic tapestry used for wall hangings and upholstery. Name comes from Aubusson, France.

#### *Clickarug*

Style of rug that originated in France in the 15th century. Aubusson evolved into several main styles over the course of the next four centuries, including popular Antoinette, Josephine and Maison patterns. Aubusson were originally flat-weave rugs, usually featuring a floral medallion and pastel colors, but today these rug patterns have been adapted for pile rugs.

[fschumacher.com/faqs/glossary.aspx](http://fschumacher.com/faqs/glossary.aspx)

Fine, hand-woven tapestry used for wall hangings or carpets. Named after the famous French village where they were originally made.

[galleryfurniture.com/manual](http://galleryfurniture.com/manual).

The origin of this term refers to carpets and rugs woven in France from the 15th to 19th Centuries. The style was brought to France through the Moors. Originally, the Aubusson rugs were created by Moors in France while supervised by artists or architects closely associated with a particular French royal court. Key identifiers of the Aubusson rug are a floral center medallion and pastel color scheme. The designs of these rugs have also been adapted to pile carpets and are now woven in India and China.

[higheredbcs.wiley.com/legacy/college/nielson/0471606405/supplementary/Decorative\\_and\\_Support\\_Fabrics\\_Glossary.pdf](http://higheredbcs.wiley.com/legacy/college/nielson/0471606405/supplementary/Decorative_and_Support_Fabrics_Glossary.pdf)

Flat tapestry or hand-taffeta weave made with a cotton warp and cotton or wool weft for wall tapestries and French Aubusson carpets or rugs. See also Rugs and Carpeting chapter. Aubusson woven tapestries and rugs may be reversible, and are fairly durable.

#### **Audible range**

#### **Slušni raspon**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Skup frekvencija zvučnoga vala koje čovjek može čuti.**

## **Audiofrequency**

### **Audio frekvencija, Čujna frekvencija, Čujna učestalost, Zvučna frekvencija**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Zvučna frekvencija u području čujnoga raspona. To je zvučna frekvencija u području od 20 Hz do oko 20 kHz.**

## **Audit**

### **Revizija, Revidiranje**

*businessdictionary.com/definition/audit.html*

Systematic examination and verification of a firm's books of account, transaction records, other relevant documents, and physical inspection of inventory by qualified accountants (called auditors). See also external audit and internal audit.

*powerhomebiz.com/Glossary/glossary-A.htm*

An examination of accounting documents and of supporting evidence for the purpose of reaching an informed opinion concerning their propriety.

*binfocanada.about.com/cs/taxinfo/g/audit.htm*

To audit means to go through the process of examining and verifying a company's financial records and supporting documents. While a business might go through an audit for any number of reasons, such as wanting to attract investors, get a loan, or sell the business, for many business people the word "audit" is welded to the words "income tax". An income tax audit is an inspection and verification of a company's records and supporting documents conducted by a CRA (Canada Revenue Agency) auditor. The CRA doesn't just conduct income tax audits, however; they perform audits of any CRA accounts, including auditing GST returns and claims for rebates. According to the CRA's Guide For Canadian Small Businesses, an audit usually takes one to two weeks, and involves "an examination of your ledgers, journals, bank accounts, sales invoices, purchase vouchers, and expense accounts." They go on to point out that the audit process may involve touring your business premises, and seeking information and assistance from your employees. As the CRA performs a certain number of audits each year to monitor compliance, it's wise to be certain that your business records are well-kept, complete, and always "audit-ready".

*consultwebs.com/legal\_glossaries/business\_law/business\_law\_glossary.html*

An examination by a trained accountant of the financial records of a business or governmental entity, including noting improper or careless practices, recommendations for improvements, and a balancing of the books.

*ISACA® Glossary of Terms English - Slovenian*

Formal inspection and verification to check whether a standard or set of guidelines is being followed, records are accurate, or efficiency and effectiveness targets are being met. Scope Note: May be carried out by internal or external groups

*smallbiz.nsw.gov.au/start/glossary/pages/a.aspx*

detailed checking of the financial records of a business by an independent qualified person (auditor) in order to verify correctness or detect errors or fraud.

*yourdictionary.com/audit*

a formal, often periodic examination and checking of accounts or financial records to verify their correctness.

## **Audit accountability**

### **Revizijska odgovornost**

*ISACA® Glossary of Terms English - Slovenian*

Performance measurement of service delivery including cost, timeliness and quality against agreed service levels.

## **Audit charter**

### **Revizijsko ovlaštenje**

*ISACA® Glossary of Terms English - Slovenian*

A document approved by the board that defines the purpose, authority and responsibility of the internal audit activity.

### **Audit evidence**

#### **Revizijski dokaz**

*ISACA® Glossary of Terms English - Slovenian*

The information used to support the audit opinion.

### **Audit expert systems**

#### **Revizijski ekspertni sustavi**

*ISACA® Glossary of Terms English - Slovenian*

Expert or decision support systems that can be used to assist IS auditors in the decision-making process by automating the knowledge of experts in the field. Scope Note: This technique includes automated risk analysis, systems software and control objectives software packages.

### **Audit objective**

#### **Cilj revizije, Revizijski cilj**

*ISACA® Glossary of Terms English - Slovenian*

The specific goal(s) of an audit Scope Note: These often center on substantiating the existence of internal controls to minimize business risk.

### **Audit plan**

#### **Plan revizije, Revizijski plan**

*ISACA® Glossary of Terms English - Slovenian*

1. A plan containing the nature, timing and extent of audit procedures to be performed by engagement team members in order to obtain sufficient appropriate audit evidence to form an opinion. Scope Note: Includes the areas to be audited, the type of work planned, the high-level objectives and scope of the work, and topics such as budget, resource allocation, schedule dates, type of report and its intended audience and other general aspects of the work. 2. A high-level description of the audit work to be performed in a certain period of time.

### **Audit responsibility**

#### **Revizijska odgovornost**

*ISACA® Glossary of Terms English - Slovenian*

The roles, scope and objectives documented in the service level agreement (SLA) between management and audit.

### **Audit sampling**

#### **Revizijsko uzorkovanje**

*ISACA® Glossary of Terms English - Slovenian*

The application of audit procedures to less than 100 percent of the items within a population to obtain audit evidence about a particular characteristic of the population.

### **Audit trail**

#### **Revizijski trag**

*ISACA® Glossary of Terms English - Slovenian*

A visible trail of evidence enabling one to trace information contained in statements or reports back to the original input source.

### **Audit universe**

#### **Opseg revizije, Revizijski opseg**

*ISACA® Glossary of Terms English - Slovenian*

An inventory of audit areas that is compiled and maintained to identify areas for audit during the audit planning process. Scope Note: Traditionally, the list includes all financial and key operational systems as well as other units that would be audited as part of the overall cycle of planned work. The audit

universe serves as the source from which the annual audit schedule is prepared. The universe will be periodically revised to reflect changes in the overall risk profile.

#### **Auditability**

##### **Mogućnost revizije**

*ISACA® Glossary of Terms English - Slovenian*

The level to which transactions can be traced and audited through a system.

#### **Auditable unit**

##### **Jedinica za reviziju**

*ISACA® Glossary of Terms English - Slovenian*

Subjects, units or systems that are capable of being defined and evaluated. Scope Note: Auditable units may include: -Policies, procedures and practices -Cost centers, profit centers and investment centers -General ledger account balances -Information systems (manual and computerized) -Major contracts and programs -Organizational units, such as product or service lines -Functions, such as information technology (IT), purchasing, marketing, production, finance, accounting and human resources (HR) -Transaction systems for activities, such as sales, collection, purchasing, disbursement, inventory and cost accounting, production, treasury, payroll, and capital assets -Financial statements -Laws and regulations.

#### **Auger electron**

*Concise dictionary of material science, by Vladimir Novikov*

Secondary electron emitted by an atom whose electron vacancy at an inner shell has been created by a high-energy primary electron. An electron from a higher energy shell subsequently fills the electron vacancy, whereas another electron, referred to as the Auger electron, is emitted from the other shell. The energy spectrum of Auger electrons is a characteristic of the atom and can be used for chemical analysis (see Augerelectron spectroscopy).

#### **Auger effect**

##### **Augerov efekt**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Neradijativni prijelaz kod kojega se šupljina u unutarnoj elektronskoj ljusci atoma popunjava elektronom iz vanjske ljuske, prenoseći energiju na drugi elektron koji biva izbačen.**

#### **Auger electron spectroscopy (AES)**

##### **Augerova elektronska spektroskopija**

*Concise dictionary of material science, by Vladimir Novikov*

Technique for chemical analysis utilizing the energy spectrum of Auger-electrons. Since Auger-electrons are of lowenergy, AES can analyze very thin surface layers only (~1 nm in depth), with the lateral resolution 20 to 50 nm. AES can also yield a depth profile of chemical composition using ion etching for the layer-by-layer removal of the material studied.

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Spektroskopska kemijska analiza površinskoga sloja uzorka u kojoj se koriste Augerovi elektroni. Kratica: AES**

#### **Aune**

*Dry goods*

A French long measure of 11/4 yards, used chiefly for cloth. It is derived from Latin *alna*, forearm. [See Measures, Barege]

*Thesaurus*

A French cloth measure, of different parts of the country (at Paris, 0.95 of an English ell); - now superseded by the meter.

## **Austrian shade**

*Adavisacc.com*

A fabric shade known for its formal appearance and vertical shirring between the scallops. Usually made of sheer fabric and classified as a sheer under treatment.

*Fabricdictionary*

Shades made of fabric Shirred across the width of the shade. When drawn up, Austrian shades hang in graceful loops of fabric.

*prioritywindows.com/catalog/Drapery-Terminology-sp-200.html*

This is a shade that is Shirred along its entire length. It can either be stationary or be pulled up. It only works with light-weight fabrics such as sheers or soft cottons. Austrian shades require a lot of precision in labor and are very fabric-consuming, so unfortunately, they have become difficult to find nowadays.

*Reference dictionary*

a window shade in which the fabric falls in a series of puffy festoons created by vertical rows of Shirring.

*Windowtreatmentexpert*

Of all the fabric shades, Austrian Shades is the best at mimicking drapery. In this Victorian style window shade, vertical rows of Shirring are scalloped upwards resulting in a shade with a swagged appearance.

*Windowtreatmentscentre*

The Austrian Shade is made in Shirred vertical sections. When raised the Austrian Shade rises into full puffs. When lowered, the Austrian maintains its ruffling effect. This shade style lends itself best to Sheer and light weight Fabrics.

## **Austrian shade cloth**

*Beloved linens*

Originally made in Austria. Cotton shade cloth woven with crinkled effect in stripes, which are similar to seersucker only broader. Fancy woven stripes in color often alternate with crinkled stripes. Cotton, or mercerized cotton, silk or rayon used in combination. Natural, white or colored. Uses: window shades, bed spreads. Weave—plain with fancy stripes. Width, 36", 45", 54", 72".

## **Authentication**

### **Autenticiranje**

*ISACA® Glossary of Terms English - Slovenian*

Subjects, units or systems that are capable of being defined and evaluated. Scope Note: Auditable units may include: -Policies, procedures and practices -Cost centers, profit centers and investment centers -General ledger account balances -Information systems (manual and computerized) -Major contracts and programs -Organizational units, such as product or service lines -Functions, such as information technology (IT), purchasing, marketing, production, finance, accounting and human resources (HR) -Transaction systems for activities, such as sales, collection, purchasing, disbursement, inventory and cost accounting, production, treasury, payroll, and capital assets -Financial statements -Laws and regulations.

## **Autoacceleration, Gel effect**

### **Autoakceleracija, Samoubrzavanje, Efekt geliranja**

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

In some polymerisation reactions, as the reaction approaches completion and the viscosity of the reaction medium rises, there is an acceleration in the rate of the molecular weight increase of the polymer chains that have not yet been terminated.

*E. VIDOVIĆ: Glosar pojmovna vezanih uz kinetiku, termodinamiku i mehanizme polimerizacije, Kem. Ind. 61 (4) 215–236 (2012)*

Povećanje brzine polimerizacije s porastom konverzije reaktan(a)ta. Kod polimerizacije, samoubrzanje može biti posljedica različitih uzročnika. Primjer samoubrzanja kod polimerizacije je Norrish-Trommsdorfov učinak (gel-efekt), koji dovodi do znatnog povećanja brzine radikalske polimerizacije s konverzijom monomera. Učinak je posljedica smanjivanja brzine terminacijske reakcije s porastom viskoznosti sustava, što dovodi do povećanja koncentracije propagirajućih radikala.

*Polymer science dictionary, by Mark S.M.Alger*

An increase in the rate of a free radical polymerisation with an increase in conversion. It is due to the increasing viscosity of the monomer/polymer mixture and/or occlusion of growing active centres, causing the decrease in the mobility of the growing active centres, which in turn slows termination. The effect is most pronounced in concentrated systems, such as in mass polymerisation, especially if the monomer is a poor solvent for the polymer, and in the solution polymerisation in poor solvents.

*Whittington's Dictionary of Plastics, by James W. Carley*

In some vinyl polymerisations, as the reaction approaches completion and the viscosity of the reaction medium rises, there is a rising rate of increase of molecular weight of the chains that have not yet been terminated. This rising increase is called autoacceleration or gel effect.

### **Autoadhesion, Tackiness**

*Whittington's Dictionary of Plastics, by James W. Carley*

The ability of two contiguous surfaces of the same material, when pressed together, to form a strong bond that prevents their separation at the place of contact.

### **Autocatalytic degradation**

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

A type of degradation in which breakdown products produced in the initial phase accelerate the rate at which subsequent degradation proceeds.

### **Autoclave, Bomb, Pressure cooker, Pressure kettle, Pressure vessel**

#### **Tlačna posuda, Tlačni kotao, Tlačni reaktor**

*antron capet and fibres*

1. An oven-like apparatus for use in yarn heatsetting operations. Under pressure in a superheated steam atmosphere, yarn is given a "memory" of its twist. Autoclave heatsetting is a batch, not a continuous, method. 2. An apparatus for making polymer under heat and pressure.

*Automateddynamics.com*

A closed vessel capable of being heated under pressure using an inert gas (CO<sub>2</sub> or N<sub>3</sub>) to transfer the heat and pressure to a laminate component in order to consolidate and cure.

*Britannica*

vessel, usually of steel, able to withstand high temperatures and pressures. The chemical industry uses various types of autoclaves in manufacturing dyes and in other chemical reactions requiring high pressures. In bacteriology and medicine, instruments are sterilized by being placed in water in an autoclave and heating the water above its boiling point under pressure.

*Ca-bc.com/zip\_internacional/usedmach/education/*

1. An apparatus for carrying out certain finishing operation, such as pleating and heat setting, under pressure in a superheated steam atmosphere. 2. Apparatus for polymerizing condensation polymers such as nylon or polyester at any pressure above or below atmospheric.

*composite.about.com/library/glossary/a/bldef-a461.htm*

A strong, closed, pressure vessel with a quick-opening door and means for heating and applying pressure to its contents. Widely used for bonding and curing reinforced plastic laminates.

*Environmental Engineering Dictionary, edited by C. C. Lee*

A heavy vessel with thick walls for conducting chemical reactions under high pressure or for sterilising equipment using steam under pressure.

*fibreglass.com/HOWTO/k-frp-terms.htm*

A closed vessel for producing an environment of fluid pressure, with or without heat, to an enclosed object while undergoing a chemical reaction or other operation.

*Glossary of Paint and Coatings Terminology, M. Pavlič, Ljubljana 2002.*

A piece of equipment used to apply superheated steam under high pressure. It is commonly used for the sterilisation of instruments in the medical field, or for testing materials which will be subjected to high temperature/high pressure applications. The results may vary based on test conditions.

*Hrvatsko nazivlje polimerstva, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Posuda pod tlakom u kojoj se djelovanjem pare ili plina odvija polimeriziranje i/ili umreživanje reaktivnih smjesa.**

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

An air-tight vessel in which materials are subjected to and treated under high steam pressure.

*Staticworx*

(1) An oven-like apparatus for use in yarn heatsetting operations. Under pressure in a superheated steam atmosphere, yarn is given a "memory" of its twist. Autoclave heatsetting is a batch, not a continuous, method.

(2) An pressurized, heated apparatus used for making polymer.

*Wikipedia*

An autoclave is a pressurized device designed to heat aqueous solutions above their boiling point at normal atmospheric pressure to achieve sterilization. It was invented by Charles Chamberland in 1879.[1] The term autoclave is also used to describe an industrial machine in which elevated temperature and pressure are used in processing materials.

### **Autoclave bonding**

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

A process in which an assembly consisting of cured composite parts, or a combination of cured composite and metal parts, is bonded using the pressure bag technique. The full assembly is covered with a pressure bag and loaded in an autoclave capable of providing heat and pressure to cure the adhesive.

### **Autoclave moulding**

#### **Autoklavno praobljkovanje**

*vidi*

#### **Bag moulding**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

A process in which reinforced plastics are cured through the use of an autoclave that sets the resin by means of high steam pressure.

*Struna – Hrvatsko strukovno nazivlje – Polimeri*

**Praobljkovanje smjese za pravljenje ojačane plastike koja se nalazi u jednodijelnome kalupu s pomoću savitljive membrane koja omogućuje jednolično djelovanje tlaka nakon čega slijedi očvršćivanje u autoklavu. Ovisno o djelujućem tlaku postupak može biti predtlačni ili podtlačni.**

### **Autoclaving**

*Hosieryassociation.com*

This process involves placing bagged greige blanks in a large cylindrical steam chamber that can be hermetically sealed. Once sealed, a vacuum system is utilized to evacuate the air in the chamber. This in turn allows subsequent attainment of steam pressure much higher than

possible at atmospheric conditions. The net result is that the undeveloped yarn in the greige leg blanks permanently shrinks and that the knitted stitches are "set". The fabric is thus much less likely to snag in succeeding operations. The shorter, tighter fabric can be handled and sewn with less labor and off-quality costs.

*.intota.com/experts.asp?strSearchType=all&strQuery=autoclaving*

The mechanical process of placing objects into an autoclave for an appropriate time, pressure, and temperature necessary for the desired objective.

*.tekra.com/expertise/medical\_films/FilmTerminology.html*

A sterilization method in which materials are subjected to high temperature, steam

### **Autogenous grinding**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

The secondary grinding of a material achieved by tumbling the material alone in a revolving drum, without the use of balls or bars.

### **Autogenous mill**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

A ball mill grinder that uses the coarse incoming material as the grinding medium.

### **Autoignition, Self-ignition, Spontaneous combustion**

*Iklimet.com*

The spontaneous ignition of gases or vapours given off by a heated material. Synonymous with ignition temperature except that no external ignition source is needed, since the material has heated itself to its ignition temperature.

*Wikipedia.org*

a type of combustion which occurs without an external ignition source. It can occur when (1) a substance with a relatively low ignition temperature begins to release heat, which may occur in several ways, such as oxidation or fermentation, (2) the heat is unable to escape, and the temperature of the material rises, (3) the temperature of the material rises above its ignition point, all of this if a sufficiently strong oxidizer, such as oxygen, is present.

### **Autoignition temperature**

*ccinfoweb.ccohs.ca/help/msds/msdstermse.html*

The auto-ignition temperature is the lowest temperature at which a material begins to burn in air in the absence of a spark or flame. Many chemicals will decompose (break down) when heated. The autoignition temperature is the temperature at which the chemicals formed by decomposition begin to burn. Auto-ignition temperatures for a specific material can vary by one hundred degrees Celsius or more, depending on the test method used. Therefore, values listed on the MSDS may be rough estimates. To avoid the risk of fire or explosion, materials must be stored and handled at temperatures well below the auto-ignition temperature.

*Nptel.iitm.ac.in*

The lowest temperature required to initiate or cause self-sustained combustion in the absence of a spark or a flame.

*Wikipedia.org*

The autoignition temperature or kindling point of a substance is the lowest temperature at which it will spontaneously ignite in a normal atmosphere without an external source of



ignition, such as a flame or spark. This temperature is required to supply the activation energy needed for combustion. The temperature at which a chemical will ignite decreases as the pressure increases or oxygen concentration increases. It is usually applied to a combustible fuel mixture.

Autoignition temperatures of liquid chemicals are typically measured using a 500 mL flask placed in a temperature controlled oven in accordance with the procedure described in ASTM E659. Autoignition temperature of some substances, under conventional conditions is as follows: Triethylborane: -20°C (-4°F); Silane: <21°C (70°F); White phosphorus: 34°C (93°F); Carbon disulfide: 90°C (194°F); Diethyl ether: 160°C (320°F)[3]; Diesel or Jet A-1: 210°C (410°F); Paper: 218°-246°C (424-474°F)[4]; Gasoline (Petrol): 246-280°C (475-536°F)[5]; Magnesium: 473°C (883°F); Butane: 405°C (761°F)[6]; Hydrogen: 536°C (997°F)[7]

## **Autoinduction**

*vidi*

## **Selfinductance**

## **Autoionisation**

### **Autoionizacija, Samoionizacija**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

### **Spontana ionizacija pobuđenoga atoma, pobuđenoga iona ili pobuđene molekule**

*IUPAC . Category: Final, Mass Spectrometry Terms, 2013*

Formation of an [ion](#) when an atom or molecule in a discrete state with an internal energy greater than the ionization threshold loses an electron spontaneously without further interaction with an energy source.

*Gold book definition 1997*

This occurs when an internally supra-excited atom or molecular moiety loses an electron spontaneously without further interaction with an energy source. (The state of the atom or molecular moiety is known as a pre-ionization state.)

## **Autoleveller**

*Bravehost*

Autoleveller is an additional device which is meant for correcting the linear density variations in the delivered sliver by changing either the main draft or break draft of the drafting system, according to the feed variation.

*Texworld*

A device that is fitted to carding and drawing machines to automatically reduce the variation of the linear density of the output material. The result is achieved by monitoring the linear density and, if necessary, changing the draft to compensate for any deviation from a pre-set value.

## **Autolevelling**

### **Samoparaleliziranje**

*HAND BOOK ON GLOSSARY OF TEXTILE TERMS, BUREAU OF INDIAN STANDARDS NEW DELHI 110 002, UDC 001.4/677 (021) ISBN 81-7061-009-5*

Automatic and continuous adjustment of draft in accordance with changes in the thickness of the incoming sliver in worsted processing with a view to obtaining uniformity in the linear density of the sliver.

## **Autolock slider**

*Polimoda*

Slider with a locking mechanism inside the body of the slider. This keeps the slider from moving on the zipper until the puller is grabbed and the locking mechanism is released. The lock automatically locks when no force is placed on the pull tab. In the semi-automatic slider, it locks only when the pull tab is lowered.

### **Automatic colour change**

*Amefid embroidery terms*

The ability of a multi-needle embroidery machine to follow a command to change to another specified needle with a different color thread in it. Many embroidery heads have as many as ten needles allowing the digitizer to program the use of ten different thread colors without stopping the machine.

### **Automatic control, Automatic operation**

#### **Automatsko upravljanje, Automatski rad**

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

A system in which regulating and switching operations are controlled automatically by some responsive device, which is sensitive to certain specific or prescribed conditions.

*Polymer Technology Dictionary, by Tony Whelan*

Machine operating mode in which the machine continues production until a fault develops.

*Whittington's Dictionary of Plastics, by James W. Carley*

In processing, control achieved by instruments that sense the state of the process and adjust process inputs such as feed rate, heater voltage, screw speed or hydraulic pressure to bring the process to the desired, or target state. Opposed to manual control, in which operators read sensing instruments and turn knobs to make processes change.

### **Automatic data processing**

*Ian J. McColm: Dictionary of Ceramic Science and Engineering, III Edition*

The performance of tasks involving informational data by means of appropriate mechanical-electronic system.

### **Automatic feeder**

*Cotton-textile*

A machine that feeds a steady supply of raw, uncleaned cotton to the CARDING MACHINE.

### **Automatic machine and attachments defects in garment**

*resil.com/c.htm*

Ragged or frayed edges, where knife attachments fail to cut efficiently. Uncut buttonholes, buttonholes not securely caught on fabric edge, wrong size, not securely fastened off. Untied stitches, where tying stitches on automatic machines fail to secure properly.

Uneven widths of piping, arising from incorrect selection or adjustment of folders. Automatic thread trimmer failing to cut.

### **Automatic profile control**

*Whittington's Dictionary of Plastics, by James W. Carley*

In film and sheet extrusion, a system for controlling the uniformity of thickness across the sheet. The main components are a traversing thickness sensor, a computer and programme that uses the sensor's signals to direct a mechanism that rotates the die-lip-adjusting bolts.

### **Automatic quality control**

#### **Automatska kontrola kvalitete**

*Polymer Technology Dictionary, by Tony Whelan*

Quality control which is performed automatically, for example, by the production machine. Because of the power of the microprocessor, used for the control system, it is now relatively easy to incorporate features so that verification of product quality is possible during the

manufacture of each item. Verification of product quality at the point of manufacture can be documented in statistical quality control (SQC) records.

### **Automatic stop motions**

#### **Automatski ustavljač niti**

*Handbook of technical textiles Edited by A R Horrocks and S C Anand*

Automatic stop motions The first group, warp protector motions, are only necessary on machines which use a free flying shuttle or projectile. They are designed to prevent the forward movement of the reed if the shuttle fails to reach the receiving side. This prevents damage to the machine and the breakage of large numbers of ends if the shuttle is trapped. Warp stop motions stop the machine if an end breaks. They are activated when a drop wire, through which an end has been threaded, drops because a broken end will no longer support it. Drop wires can be connected to mechanical or electrical stop motions. Yarns have to be properly sized to prevent them being damaged by the drop wires. Electronic warp stop motions, which do not require physical contact with the warp, are now being introduced especially for fine filament yarns. Weft stop motions are used to activate weft changes in automatic shuttle looms and to stop weaving machines if the weft breaks during weft insertion. Electronic motions are available that will stop the machine even if a broken end catches on again before it reaches the receiving side. In air jet machines fitted with automatic repair facilities the weft stop motion also starts the weft repair cycle.

### **Automatic tension**

*bovil.com/index.php?option=com\_content&task=view&id=21&Itemid=48*

While thread *tension* does need to be adjusted to account for different fabrics and threads, most sewing can be done without much tension adjustment. Marketers labeled this pre-set tension level as "Automatic Tension." A machine that lets you adjust away from this preset level is great, as sometimes it's necessary. A machine that only has "Automatic Tension" is often a disaster when you try to sew with threads or fabrics not appropriate to its setting.

#### *Burdastyle*

A sewing machine feature that sets the balance between the bobbin and needle threads. On some sewing machines the tension has one permanent setting. On other machines the tension can be set or is adjusted automatically according to the type of fabric.

### **Automobile tyre cloth**

#### *Beloved linens*

A variety of weaves and textures made from long staple cotton for tires. Treated with rubber and vulcanized.

### **Autooxidation**

#### **Samooksidacija**

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

Self-sustaining oxidation in which the oxidation may continue for a time after exposure to the oxidising agent has been terminated.

*Polymer science dictionary, by Mark S.M. Alger*

Free radical oxidation by atmospheric oxygen in which the products catalyse further oxidation and therefore cause the acceleration in the oxidation rate. Usually, hydroperoxides are responsible, since they dissociate either thermally or on ultraviolet light irradiation to free radicals, which initiate new oxidation chains. The progress of autooxidation is measured, for example, by oxygen uptake, and shows an induction period followed by the autoacceleration stage

*Whittington's Dictionary of Plastics, by James W. Carley*

After polyolefins have been exposed to an oxidising process, such as corona discharge treatment, to render them receptive to inks or adhesives, the oxidation may continue for a time after exposure to the oxidating agent has been terminated. Such self-sustaining oxidation is called autooxidation.

### **Autothermal extrusion, Autogenous extrusion, “Adiabatic” extrusion**

*Encyclopedic Dictionary of Polymers, Volume 1 edited by Jan W. Gooch*

An extrusion operation in which the entire increase in enthalpy of the plastic, from feed throat to die, or very nearly all of it, is generated by the frictional action of the screw. In such an operation, which most commercial single - screw extrusions approach closely, the functions of the barrel heaters are to preheat the machine at startup and, during steady operation, to prevent heat loss from the plastic through the barrel to the surroundings.

*Whittington's Dictionary of Plastics, by James W. Carley*

In screw extruders, a steady state operation in which the increase in enthalpy of the plastic from feed throat to die entry is equal to the net energy furnished by the drive to the screw.

### **Auxiliary, Auxiliary product**

*Colour glossary*

A chemical or formulated chemical product which enables a processing operation in preparation, dyeing, printing or finishing to be carried out more effectively or which is essential if a given effect is to be obtained.

*Glossary of Printing Terms, By Aatcc*

Any material which assists in performing some process. In dyeing and printing, any detergent, wetting, swelling, defoaming or proprietary product other than dyes and regular chemicals are considered auxiliary products. Such products are sold under a trade name rather than a chemical name.

*.intota.com/experts.asp?strSearchType=all&strQuery=textile+chemical+auxiliary*

A chemical used to process textile fibers into a finished product, such as a surfactant, softener, antistatic agent, finish, lubricant, or bleach.

### **Availability**

#### **Raspoloživost**

*ISACA® Glossary of Terms English - Slovenian*

Ensuring timely and reliable access to and use of information.

### **Available energy**

*Dictionary of Ceramic Science and Engineering, By Ian McColm*

Energy existing in bodies or systems under conditions in which work may theoretically be obtained from them.

### **Available heat**

*Dictionary of Ceramic Science and Engineering, By Ian McColm*

The amount of heat per unit mass of a substance that may be transformed into some form of work, such as in an engine or other system, under ideal conditions.

### **Avalanche breakthrough**

#### **Lavinasti proboj**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Naglo povećanje električne struje u materijalu koji je inače izolator ili poluvodič.**

## Average, Arithmetic mean, Mean

*Analytical-s*

The average (or mean) is often the best single statistic to characterise a set of results. It is the sum of the individual results divided by the number of results.

*Ne-wea.org*

A way to represent a group of similar data points with a single number. The average can be reported in three different ways; mean, median, and mode. Of these, the mean is what is generally meant or intended.

*Physical testing of textiles, by B. P. Saville, Textile Institute (Manchester, England)*

The arithmetic mean is the measure most commonly chosen to represent the central value of the sample. It is obtained by adding together the individual values of the variable and dividing the sum by the number of individuals.

## Average acceleration

### Prosječno ubrzanje, Srednje ubrzanje

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Omjer promjene brzine gibanja čestice i pripadnoga vremenskog intervala.**

## Average degree of polymerisation

### Prosječni stupanj polimerizacije

*Hrvatsko nazivlje polimerstva, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Srednja vrijednost stupnja polimerizacije.**

## Average density, Medium density

### Prosječna gustoća, Srednja gustoća

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Gustoća nehomogenoga tijela jednaka omjeru ukupne mase i ukupnoga obujma tijela. Za šuplje ili šupljikavo tijelo sastavljeno od neke tvari i zraka prosječna je gustoća jednaka gustoći tvari podijeljenoj s jedinicom uvećanom za omjer obujma zraka i obujma tvari.**

## Average mass

### Prosječna masa, Srednja masa

*IUPAC . Category: Final, Mass Spectrometry Terms, 2013*

Mass of an ion or molecule weighted for its isotopic composition.

## Average molar mass

### Prosječna molarna masa

*Characterization and Analysis of Polymers, edited by Arza Seidel*

The molar mass of a polymer is usually described by an average molar mass. If the chains are counted by number it is the number-average molar mass  $\bar{M}_n$ , whereas if it is counted by weight, it is the weight-average  $\bar{M}_w$ ; higher averages,  $\bar{M}_z$ , etc. can also be calculated. The parameter  $M_w/M_n$ , known as molar mass distribution, is characteristic of the method of synthesis. Ionic and coordination polymerisation will have  $M_w/M_n$  approaching 1,05, whereas a polymer produced using a radical initiated reaction has values between 1,5 and 4,5. Insertion polymerisation, e.g. Ziegler-Natta olefin polymerisation, yield values between 5 and 20. With condensation and ring-opening step growth polymers, the value of  $M_w/M_n$  will be between 3 and 20. The distribution parameter can indicate whether the material is a blend of polymers or is a single material. Three types of polymer distribution are typically observed in samples obtained from polymerisation: logarithmic normal, Poisson and Schulz-Flory distributions. The Poisson distribution can be very narrow and occurs when a constant number of polymer chains grow simultaneously and the addition of the next monomeric unit is independent of previous unit. This is found in anionic polymerisation. The Schulz-Flory distribution, typical of

radical polymerisation, arises when a constant number of chains growing ends exist and when termination and chain initiation processes are also active. This is in contrast to the Poisson distribution. A logarithmic normal distribution is found for the polymerisation of polyethylene and polypropylene.

### **Average molecular weight**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

The averaged value of molecular weight of a single polymer chain in a bulk polymer, reflecting the distribution of chain lengths present in all polymers.

*Bloomerplastics.com*

Molecular weight of polymers is determined by viscosity of the material in solution at a specific temperature. This results in an average molecular weight of the molecular chains independent of specific chain length. The value obtained falls between weight and number average molecular weight.

*oldnc.3dn.ru/Docs/Harper.C.A.Plastics\_Materials\_and\_Proc-s.pdf*

The average molecular weight is the molecular weight of the most typical chain in a given plastic. There will always be a distribution of chain sizes and, hence, molecular weights in any polymer. There are several ways of determining molecular weight including viscosity, vapor pressure osmometry, light scattering, and gel permeation chromatography.

*stealth316.com/misc/plastics-techdata.pdf*

The molecular weight of polymeric materials determined by the viscosity of the polymer in solution at a specific temperature. This gives an average molecular weight of the molecular chains in the polymer independent of specific chain length. Falls between weight average and number average molecular weight.

*The Science of Polymer Molecules, By Richard H. Boyd, Paul J. Phillips*

The simplest way of defining an average molecular weight is an empirical definition: sample weight divided by the total number of moles of molecules of all the various chain lengths. The molecular weight defined this way is known as the number-average molecular weight. It is also possible to, in defining the average molecular weight, to judge the weight of the fraction, rather than the number of moles. This is called weight-average molecular weight.

*vitargo.com/01UK/Other/Dictionary.html*

The average molecular weight of a substance. The higher the breakdown level, the lower the average molecular weight is. Take a good look at Vitargo's breakdown level compared to other sport and energy drinks!

### **Average outgoing quality (AOQ), Average quality level**

*Whittington's Dictionary of Plastics, by James W. Carley*

The average fraction defective in lots subjected to sampling inspection. Random samples of size  $n$  are routinely inspected. If the sample contains  $c$  or less defective items, the lot is accepted and the sample, without its defectives, is returned to the lot. If more than  $c$  defective items are found, the entire lot is inspected and, presumably, all defective items are culled out. For a given incoming lot fraction defective, AOQ is the long-term average fraction defective in outgoing (inspected) lots. More elaborate plans may involve double or multiple sampling, but AOQ has the same meaning for all.

### **Average particle size**

*Dictionary of Ceramic Science and Engineering, By Ian McColm*

The average of the dimensions of particles of a material or a mixture of materials.

### **Average pile density**

*antron capet and fibres*

The weight of pile yarn in a unit volume of carpet. It is expressed in ounces per cubic yard in the formula: **Density = pile yarn Weight** (in ounces per square yard) times 36 divided by pile **Thickness or pile** (in inches). Average pile density factors for commercial carpets range from 4200 to 8000.

*Baneclene*

The weight of a pile yarn (including buried portions of the pile yarn) in a unit volume of carpet, which is expressed in ounces per cubic yard. Also called "Average pile yarn weight". The closer the tufts are to each other, the denser the pile and the less weight each individual tuft has to support. Pile density is not only evaluated by the closeness of the tufts but also by the height and weight of the pile yarn. All other things being equal, the greater the pile density, the greater the wearability of the carpet and the longer it will last.

### **Average quality level (AQL)**

**Prihvatljiva razina kvalitete**

*Pojmovnik, Ekspert trgovina – za sigurnost i vještačenje*

Izraz koji označava "Average Quality Level" na engleskom, u prijevodu "Prihvatljiva razina kvalitete". Norma ISO N° ISO2859 označava plan provjere uzoraka za kontrolu proizvodnje, AQL označava maksimalan broj rukavica s greškom koje se mogu naći u količini od 100.

### **Average stiffness**

*Ca-bc.com/zip\_internacional/usedmach/education/*

The ratio of change in stress to change in strain between two points on a stress-strain diagram, particularly the points of zero stress and breaking stress. (Also see MODULUS).

### **Average value, Mean value**

**Prosječna vrijednost, Srednja vrijednost, Aritmetička sredina, Prosječna veličina**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Očekivana vrijednost neke varijable  $x$  koja je izračunana statističkim metodama.**

### **Average velocity, Average speed, Mean speed, Mean velocity**

**Prosječna brzina, Srednja brzina,**

*Environmental Engineering Dictionary, Thomas M.Pankratz*

The average velocity of a fluid flowing in a channel, pipe, or duct, determined by dividing the discharge by the cross sectional area of the flow.

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Omjer vektora pomaka čestice i odgovarajućega vremenskog intervala.**

### **Avivage**

**Avivaža**

*HAND BOOK ON GLOSSARY OF TEXTILE TERMS, BUREAU OF INDIAN STANDARDS  
NEW DELHI 110 002, UDC 001.4/677 (021) ISBN 81-7061-009-5*

The after treatment of desulphurized and rinsed rayon yarns in order to give a soft hand to the stock.

### **Avogadro constant, Avogadro's number**

**Avogardova konstanta, Avogardova stalnica**

*cliffsnotes.com/WileyCDA/Section/Physics-Glossary.id*

the number of objects or particles in a mole of substance, namely,  $6.02 \times 10^{23}$ .

*Concise dictionary of material science, by Vladimir Novikov*

Amount of atoms, ions, or molecules in a mole of any substance;  $N_A \cong 6.022 \cdot 10^{23} \text{ mol}^{-1}$ .

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Broj istovjetnih čestica u jednome molu neke tvar. Simbol:  $N_A$**

*Theleavingcert.com*

The number of carbon atoms in exactly 12 grams of the carbon-12 isotope.

### **Avogadro's law**

#### **Avogardov zakon**

*carbideprocessors.com/pages/Machine-Coolant-Filtration-Glossary.html*

Sometimes referred to as Avogadro's principle. Equal volumes of different gases under the same conditions of temperature and pressure contain the same number of molecules. See also Boyle's Law and Charles' Law.

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Zakon koji tvrdi da je, uz stalan tlak i stalnu temperaturu, obujam plina razmjeran broju čestica u posudi, odnosno da je u jednakim obujmima dvaju plinova jednaka količina atoma ili molekula. Zakon točno vrijedi za idealne plinove, a približno i za većinu realnih plinova.**

*Theleavingcert.com*

Equal volumes of all gases at the same temperature and pressure contain equal numbers of molecules.

*Wikipedia.org*

Equal volumes of ideal or perfect gases, at the same temperature and pressure, contain the same number of particles, or molecules." Thus, the number of molecules in a specific volume of gas is independent of the size or mass of the gas molecules.

*wordnetweb.princeton.edu/perl/webwn?s=avogadro's law*

the principle that equal volumes of all gases (given the same temperature and pressure) contain equal numbers of molecules

### **Avoidable delay**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

A delay in the production process that could be avoided by proper management of work practices, as opposed to the delay due to external causes or uncontrollable circumstances.

### **Award jacket, Baseball jacket**

*Activeimprints.com*

a baseball-style jacket with contrasting striped trim.

*corporatologo.com/articles/products/616\_291feat4.html*

This generic term is used to describe an athletic jacket, usually a waist-length style with knit collar, cuffs and waistband. It can feature a zipper or snap front. Often used interchangeably with baseball jacket.

### **Awareness**

#### **Svjesnost, Svijest, Spoznaja, Znanje**

*ISACA® Glossary of Terms English - Slovenian*

Being acquainted with, mindful of, conscious of and well informed on a specific subject, which implies knowing and understanding a subject and acting accordingly.

### **Awl, Stilleto**

*Americantapestry alliance*

A pointed, metal instrument used for piercing small holes in leather, wood, etc. Weavers use awls to loosen, or pick apart, the densely packed weft and to manipulate the surface of the woven fabric.



*Needlepointers.com*

A sewing tool used for pushing out the inner corners of a turned-in fabric with its pointed tip. Useful for making collars.

*scribd.com/doc/706009/Manual-of-Leather-Garments*

An awl or stilleto is a small sharp instrument used to make marks in the patterns for fixing fittings.

*sewingweb.com/dictionary/*

Tool with pointed tip used to push out corners when fabric is turned (for example, when making a collar).

*TheSewingDictionary.com - Your Sewing Dictionary and Glossary On the Web*

Tool that looks a bit like ice pick, but usually with a rounder knob/handle. An awl is used to "poke" holes in fabric for creating handmade eyelets. Sometimes it is used for pushing out corners or squared off sewing areas (such as pockets or collars), but care must be taken to not put a hole through the fabric.

## **Awning**

*Acmeawningco*

An awning is an architectural projection that provides weather protection, identity or decoration and is wholly supported by the building to which it is attached. An awning is comprised of a lightweight, rigid skeleton structure over which a rigid covering is attached.

*ceere.org/beep/docs/FY2001/NFRC Glossary.pdf*

A shading device on a metal frame mounted on the outside of the window. An effective sunshade, especially for east and west windows.

*demo.techfabricpresence.com/resources/glossary.html*

An awning is an architectural projection that provides weather protection, identity or decoration and is wholly supported by the building to which it is attached. An awning is comprised of a lightweight, rigid skeleton structure over which a rigid covering is attached.

*teonline.com/knowledge-centre/textile-product.html*

Awnings are used for sun protecting and for enhancing the beauty of home or office. These awnings, generally meant for window, door and patio, come in variety of styles, shapes, sizes and colors. The fabric awnings and canopies are usually made of canvas and awning or marine grade fabric. Today, awnings can be found in any shape- standard, round, concave or dome- shaped. The heavy-duty free standing commercial canopy are mostly accompanied with steel poles and frames. Some of them have slip- fit and bolt design which allows the awning to be assembled for permanent use or to be dismantled and transported to other locations. The portable shelters and instant pop up canopies are usually lightweight designed for quick and easy setup and take down. They are ideal for backyards, beach and outdoor events. These retractable awnings are either manually operated or motorized. The Manual Retractable Awnings are hand operated having a simple hand crank mechanism. Motorized Awnings open and close with a touch of a button, using a powerful electric motor.

## **Awning cord**

*awninginfo.com/content/view/54/133/*

Small diameter cord used for attaching awning covers to a frame or structure; most commonly a cotton, polyester or nylon with stretch resistant fiber core.

*demo.techfabricpresence.com/resources/glossary.html*

Small-diameter cord used for tying down awning covers and for many utility purposes; most commonly a cotton braid with stretch resistant fiber core.

*jamarco.com/09a\_Rope/rope\_glossary.htm*

small diameter cord used for many utility purposes; most commonly a cotton braid with stretch resistant fiber core.

### **Awning stripe**

*Artlandia Glossary of Pattern Design*

A pattern of relatively wide, even, usually vertical stripes of solid color on a lighter ground.

Resembles the pattern on awning fabrics.

*Beloved linens*

Duck woven with stripes (yarn dyed) for awnings and lawn umbrellas. May be used for couch covers and chair seats.

*Ceca fabric glossary*

a strong cotton canvas with a yarn dyed or printed stripe.

*chezchazz textile*

Heavyweight canvas fabric with evenly spaced stripes of contrasting colors.

*Fabricdictionary*

Stripes seen on awnings designed to protect windows from sun. Awning stripes are sometimes used on fabric for apparel and are usually brightly colored and at least 1" wide.

Awning stripe patterns may also have a narrow stripe about 1/4" wide on each side of the main stripe.

*fibrefashion*

1. A design of wide even stripes 2. A heavy canvas fabric with this design. May be yarn dyed or printed.

*Library*

1. a design of wide even stripes 2. a heavy canvas fabric with this design. May be yarn dyed or printed.

*Pineta – Gradl za rolete*

Tkanina otporna na sunce i atmosferilije. Radi se jednoboja i sa široko utkanim prugama.

### **Axial bearing**

**Aksijalni ležaj**

*REČNIK TRIBOLOŠKIH TERMINA , B. Ivković, Kragujevac 2012.*

Ležaj kod koga opterećenje deluje u pravcu ose obrtanja osovine ili vratila.

### **Axial compressor**

**Aksijalni kompresor**

*Naftni rječnik – Perić*

Tip kompresora za stlačivanje fluida (na primjer, plina) koji struji od usisa do izlaza iz kompresora duž njegove duge osovine s brzo rotirajućim lopaticama ili vijcima.

### **Axial divergence**

**Osna divergencija**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

Divergencija snopa rendgenskih zraka u ravnini određenoj izlaznom pukotinom snopa iz rendgenske cijevi i osi goniometra u difraktometru za polikristalni uzorak.

### **Axial flow**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

(1) A flow of turbomachinery in which a flowing fluid always moves parallel to the length of the rotating shaft, as in axial flow compressor or turbine. (2) In general, any flow parallel to the axis.

## **Axial force diagram**

### **Dijagram uzdužnih sila**

*građevinarstvo \_ Struna \_ Hrvatsko strukovno nazivlje.html*

**Grafički prikaz uzdužnih sila unutar elementa koje su proizvod djelovanja opterećenja.**

## **Axial groove, Longitudinal groove, Longitudinal slot**

### **Uzdužni utor**

*struna\_knj\_14\_strelementi\_04(1381).pdf – Foxit Reader*

**Utor za podmazivanje usporedan s osi radijalnoga kliznog ležaja.**

## **Axial load, Axial loading, Axial stress, Thrust load**

### **Osno naprezanje, Osno opterećenje**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

(1) The concentrated force that is normal to a sectional plane and that is applied at the centroid of the plane. (2) A distributed force whole reactant acts at the centroid of the plane to which it is perpendicular.

*Appmeas.co.uk*

The load applied to the length of, or parallel to, the primary axis with which it shares a common axis.

*composite.about.com/library/glossary/a/bldef-a474.htm*

A pure tension or compression load acting along the long axis of a straight structural member.

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

A tension or compression stress created in a structural member by the application of a lengthwise axial load.

*Naftni rječnik – Perić*

Sila koja djeluju duž osi (okomito na presjek) predmeta.

*struna\_knj\_14\_strelementi\_04(1381).pdf – Foxit Reader*

**Opterećenje koje djeluje u smjeru osi određenoga elementa. Za kombinirano opterećene radijalne valjne ležajeve koji istovremeno prenose radijalno i aksijalno opterećenje, ekvivalentno dinamičko opterećenje ležaja određuje se po izrazu.**

## **Axial modulus, Elastic section modulus**

### **Osni moment otpora**

*Građevinsko strukovno nazivlje, Marija Jelaska*

**Kvocijent aksijalnoga momenta tromosti s obzirom na zadanu glavnu središnju os i najveće udaljenosti točke konture presjeka od zadane osi.**

## **Axial moment of inertial**

### **Osni moment tromosti**

*Građevinsko strukovno nazivlje, Marija Jelaska*

**Integral umnoška elementa površine i kvadrata udaljenosti od zadane osi s obzirom na određenu os. Aksijalni moment tromosti uvijek je pozitivan.**

## **Axial pitch**

### **Aksijalni korak**

*struna\_knj\_14\_strelementi\_04(1381).pdf – Foxit Reader*

**Udaljenost između presječnih točaka linije usporedne s osi cilindričnoga zupčanika s kosim zubima i dvaju susjednih istovjetnih bokova zuba. Ako je širina zupčanika u odnosu prema aksijalnom koraku cijeli broj, ostaju dužine linije dodira bokova u svim položajima zahvata jednake.**

### **Axial ratio**

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

The ratio of the length of one axis to that of another.

### **Axial seal**

#### **Aksijalna brtva**

*struna\_knj\_14\_strelementi\_04(1381).pdf – Foxit Reader*

**Brtva na rotirajućoj osovini ili vratilu kojom se proizvodi aksijalna sila brtvljenja. Aksijalna je brtva s pomoću opruge pritisnuta na nepomičnu brtvenu površinu okomitu na os.**

### **Axial strain**

*composite.about.com/library/glossary/a/bldef-a476.htm*

Ratio component of Young's Modulus of Elasticity indicating strain applied along an axis of a material. Linear strain in a plane parallel to the longitudinal axis of the specimen.

*Instron*

The Strain in the direction that the load is applied, or on the same axis as the applied load.

*nhml.com/resources\_NHML\_Definitions.cfm*

Increase (or decrease) in length resulting from a stress acting parallel to the longitudinal axis of the specimen.

### **Axial stress**

*vidi*

### **Axial load**

### **Axial symmetry**

#### **Osna simetrija**

*Academic Press Dictionary of Science and Technology, By Christopher G. Morris, Academic Press*

A symmetry with respect to a line. In particular, an aspect of geometric configuration is said to have axial symmetry if it remains unchanged when rotated around a given line. The line is called the axis of symmetry.

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Simetrija koja je svojstvo tijela ako ono ostaje nepromijenjeno nakon vrtnje oko osi za kut  $2\pi/n$ , pri čemu je  $n$  cijeli broj.**

### **Axial vector, Pseudovector**

#### **Aksijalni vektor, Pseudovektor**

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Vektor koji ne mijenja smjer pri promjeni smjera svih triju koordinatnih osi u pravokutnome Kartezijevu sustavu**

### **Axial winding**

*Automateddynamics.com*

In fiber placement, a winding with the filaments parallel to the long axis of the mandrel. The fiber tows are said to be at a  $0^\circ$  helix angle.

*/composite.about.com/library/glossary/a/bldef-a478.htm*

A method of filament winding reinforced plastics in which the filaments are wound parallel to the axis of rotation (zero degree helix angle).

*Netcomposites*

A type of filament winding in which the filaments are parallel to the axis.

*oldnc.3dn.ru/Docs/Harper.C.A.Plastics\_Materials\_and\_Proc-s.pdf*

In filament winding processes, an axial winding is a winding with the filament parallel to, or at a small angle to, the axis ( $0^\circ$  helix angle). This is a filament winding angle that will provide

very high stiffness of the wound form but very low hoop or circumferential strength because the main direction of the reinforcement is in the direction of the pipe length.

### **Axial yarn**

*About.com*

A yarn used parallel to the braid axis and included within a braided layer.

*Ca-bc.com/zip\_internacional/usedmach/education/*

A system of longitudinal yarns in a triaxial braid that are inserted between bias yarns.

*composites.ugent.be/home\_made\_composites/documentation/Glossary\_of\_textile\_terms\_for\_composites.pdf*

1. A yarn running purely in the 0° direction of a fabric (warp direction). This yarn has no intentional crimp.
2. The system of longitudinal yarns in a triaxial braid that are inserted between bias yarns.

### **Axis of symmetry, Bisector, Centreline, Line of symmetry, Symmetry axis**

#### **Os simetrije, Simetrala, Simetrijska os**

*Dictionary of Composite Materials Technology, By Stuart M. Lee*

Any axis lying within a plane cross-sectional area passing through the centre of gravity of that area and about which all section details are symmetric.

*Hrvatsko nazivlje u fizici, Institut za hrvatski jezik i jezikoslovlje, 2015*

**Os u kristalu sa svojom da se strukturni motiv zakretom za neki kut oko te osi dovodi u položaj u kojem je bio prije zakreta. Primjerice, simetrijska os 1., 2., 3., 4. ili 6. reda strukturni motiv dovodi u isti položaj zakretima za 360, 180, 120, 90 ili 60 stupnjeva.**

### **Axminster, Axminster carpet**

*antron capet and fibres*

A weaving method originating in the eighteenth century in Axminster, England. In this method, individual pile tufts are inserted from spools of colored yarns, making possible an almost endless variety of colors and geometric or floral patterns.

*Area rugs*

Rugs manufactured by a particular style of loom and weaving that originated in the town of Axminster, England during the industrial revolution. The Axminster loom offers great flexibility of color, enabling use of up to 70 colors, and design. These machine-made rugs are woven onto a flexible cotton frame, the pile is then cut level to one height and the pile tufts are anchored by strong wefts. Axminster rugs combine many colors in geometric or floral patterns.

*Beloved linens*

Pile carpet named for town in England where first made.

*Ca-bc.com/zip\_internacional/usedmach/education/*

A machine-woven carpet in which successive weft-wise rows of pile are inserted during weaving according to a predetermined arrangement of colors. There are four main types of Axminster looms: Spool, Gripper, Gripper-Spool, and Chenille.

*Carpets & Rugs*

A type of power loom for making machine woven rugs. Very intricate designs using many colors (The Original Karastan Collection, for example) are possible on an axminster loom.

*Clickarug*

Rugs manufactured by a particular style of loom and weaving that originated in the town of Axminster, England during the industrial revolution. The Axminster loom offers great flexibility of color, enabling use of up to 70 colors, and design. These machine-made rugs are woven onto a flexible cotton frame, the pile is then cut level to one height and the pile tufts are anchored by strong wefts. Axminster rugs combine many colors in geometric or floral patterns.

*Floorbiz-com*

Axminster carpet is one of the basic weaves that originated in the 1700's in the town of Axminster, England. Axminster carpets were knotted in wool on woolen warps, with wefts of flax or hemp, and featured Renaissance architectural or floral patterns. The Axminster carpet factory closed in 1835 with the advent of industrial weaving machines. The name survives as a generic term for all machine-made carpets with pile similar to velvet or chenille. Unlike the Wilton weave, almost all pile yarn appears on the surface of this carpeting. This beautifully classic, and traditional carpet is suitable for wall-to-wall applications, on stairs or even custom cut into special area rug treatments.

**Korak**

Aksminsterski tkani sagovi bili su prije pojave taftanih sagova najomiljenija vrsta sagova, kod kojih nije bilo ograničenja glede broja korištenih boja – ni 50 boja, uporabljenih za tkanje takvoga saga nije bilo ništa neobično. Aksminsterski (prvotno nazvani ženilski) sagovi potječu iz engleskog mjesta Axminster. Tehnika njihove izrade je tkanje kod kojega se po određenom redosljedu u redovima nanose pređe različitih boja, ovisno o željenom uzorku. Značajka aksminsterskog saga su rezani čvorovi i uporaba pređe s manjim brojem zavoja. Površina aksminsterskog saga podsjeća na sagove sa ručnim izrađivanjem čvorova, mada ih unatoč tome nije teško prepoznati u usporedbi s drugim sagovima, i to po zavijanju u »rolu« po dužini, dok zavijanje po širini nije moguće (slika 7 A). Za podloge se koriste kruta jutena vlakna, od kojih je sačinjena grebenasta stražnja strana saga

*resil.com/c.htm*

A machine-woven carpet, with cut pile, in which successive weft-wise rows of pile are inserted during weaving in a pre- arranged colour sequence.

*Staticworx*

A weaving method originating in the eighteenth century in Axminster, England. In this method, individual pile tufts are inserted from spools of colored yarns, making possible an almost endless variety of colors and geometric or floral patterns.

**Axiom**

*vidi*

**Postulate**

**Axis of rotation**

*vidi*

**Rotation axis**

**Axle shoulder**

**Rame osovine**

*struna\_knj\_14\_strelementi\_04(1381).pdf – Foxit Reader*

**Dio osovine čija je površina okomita na površine sjedišta ležaja i određuje aksijalni položaj ležaja.**

**Azeotrope**

*chemicool.com/definition/azeotrope.html*

a liquid mixture with a constant maximum or minimum boiling point lower or higher than the boiling points of its components and with the capacity to distill without change in composition

*Environmental Engineering Dictionary, edited by C. C. Lee*

A liquid mixture of two or more substances which behaves like a single substance in that the vapour produced by partial evaporation of liquid has the same composition as the liquid.

*etfinancial.com/solventgloss.htm*

A mixture of chemicals is azeotropic if the vapor composition is identical to that of the liquid phase. This means that the distillate of an azeotrope is theoretically identical to the solvents from which it is distilled. In practice, the presence of contaminants in the solvent slightly upsets the azeotropy.

*Wikipedia.org*

An azeotrope (pronounced /ay-ZEE-ə-trope/) is a mixture of two or more liquids (chemicals) in such a ratio that its composition cannot be changed by simple distillation.[1] This occurs because, when an azeotrope is boiled, the resulting vapor has the same ratio of constituents as the original mixture.

Because their composition is unchanged by distillation, azeotropes are also called (especially in older texts) constant boiling mixtures. The word azeotrope is derived from the Greek words ζέειν (boil) and τρόπος (change) combined with the prefix α- (no) to give the overall meaning, “no change on boiling.”

More than 18,000 azeotropic mixtures have been documented

### **Azeotropic**

#### **Azeotropan**

*Glossary of Rubber and Rubber-like Materials, ASTM publication, Philadelphia 1956*

Showing no change in boiling point. A term applied to a definite mixture, consisting of two or more different liquids having different boiling points, which shows no change in boiling point or distillation.

### **Azeotropic copolymerization**

#### **Azeotropna kopolimerizacija**

*E. VIDOVIĆ: Glosar pojmova vezanih uz kinetiku, termodinamiku i mehanizme polimerizacije, Kem. Ind. 61 (4) 215–236 (2012)*

Binarna kopolimerizacija kod koje ni jedan od dva omjera reaktivnosti monomera,  $r_{12}$  i  $r_{21}$ , nije jednak jedinici, a ipak kopolimerizacijom nastaje kopolimer u kojemu je množinski omjer monomernih jedinica jednak množinskom omjeru monomera u početnoj smjesi. Azeotropna polimerizacija javlja se samo za jedan, specifični množinski omjer monomera u njihovoj početnoj smjesi.

### **Azlin**

*resil.com/c.htm*

A plain weave fabric in cotton, produced in a variety of plain colours. Used mainly for soft furnishings.

### **Azlon (fibre) (USA)**

*Britannica*

synthetic textile fibre composed of protein material derived from natural sources. It is produced, like other synthetic fibres, by converting the raw material to a solution that is extruded through the holes of a device called a spinneret and then stretched to improve the alignment of the chains of molecules making up the fibres.

*Ca-bc.com/zip\_internacional/usedmach/education/*

A manufactured fiber in which the fiber-forming substance consists of any regenerated naturally occurring proteins (FTC definition). Azlon is not currently produced in the United States.

*fibre2fashion*

a term used to describe manufactured fibres in which the fibre-forming substance is composed of any regenerated naturally occurring protein. The iso generic name is protein.

*HAND BOOK ON GLOSSARY OF TEXTILE TERMS, BUREAU OF INDIAN STANDARDS NEW DELHI 110 002, UDC 001.4/677 (021) ISBN 81-7061-009-5*

A generic term for fibres or filaments manufactured from modified proteins or derivatives thereof, with less amounts of non-fibre forming material 'or without it.

*Textile fibres, dyes, finishes and processes, by Howard L.Needles*

Azlon is the generic name given to manufactured fibres composed of a regenerated natural protein. Azlon is produced by dissolving proteins like casein from milk, soya bean protein,

and zein from corn in dilute alkali and forcing these solutions through a spinneret into an acid-formaldehyde coagulation bath. Many of the properties of these fibres resemble natural protein fibres, but they suffer from low dry and wet strength and sensitivity to alkalis. Although no longer produced in the US, azlon fibres are produced in Europe and used in blends with natural and man-made fibres.

## **Azo dyes**

*Britannica*

any of a large class of synthetic organic dyes that contain nitrogen as the azo group  $-N=N-$  as part of their molecular structures; more than half the commercial dyes belong to this class. Depending on other chemical features, these dyes fall into several categories defined by the fibres for which they have affinity or by the methods by which they are applied.

*Ca-bc.com/zip\_internacional/usedmach/education/*

Dyes characterized by the presence of an azo group ( $-N=N-$ ) as the chromophore. Azo dyes are found in many of the synthetic dye classes.

*list.emich.edu/~dyers/pdfs/dyeglossary.PDF*

referring to a chemical compound which contains two nitrogen atoms with a double bond between them ( $-N=N-$ ) "Azo" is used for a class of dyes based on (this) chemical structure. Azo dyes may be found among direct, acid, basic, reactive and disperse dye classes. Dyes with one pair of nitrogen atoms azo bonded are often called monoazo. Those with two or three azo bonded pairs are called disazo (not diazo) and trisazo, respectively.

*uqu.edu.sa/files2/tiny\_mce/plugins/filemanager/files/4300270/al./industrial dyes.pdf*

The azo dyes are by far the most important class, accounting for over 50% of all commercial dyes, and having been studied more than any other class. Azo dyes contain at least one azo group but can contain two (disazo), three (trisazo), or, more rarely, four (tetrakisazo) or more (polyazo) azo groups. The azo group is attached to two groups, of which at least one, but more usually both, are aromatic. They exist in the trans form 1 in which the bond angle is ca.  $120^\circ$ , the nitrogen atoms are  $sp^2$  hybridized, and the designation of A and E groups is consistent with C.I. usage. Almost without exception, azo dyes are made by diazotization of a primary aromatic amine followed by coupling of the resultant diazonium salt with an electron-rich nucleophile. The diazotization reaction is carried out by treating the primary aromatic amine with nitrous acid, normally generated in situ with hydrochloric acid and sodium nitrite. The nitrous acid nitrosates the amine to generate the N-nitroso compound, which tautomerises to the diazo hydroxide.

*us.hessnatur.com/shop/glossary.action;jsessionid?letter=a*

These are the largest group of dyes used these days. They are synthetic, and produce bright colors. The dye group is manufactured on the basis of crude oil. Azo dyes are generally not classified as health hazardous. Some of the dyes do, however, release aromatic amines that can be carcinogenic and toxic. These aromatic amines can be released by saliva or perspiration and penetrate the body.

*Wikipedia*

Azo compounds are compounds bearing the functional group  $R-N=N-R'$ , in which R and R' can be either aryl or alkyl. The  $N=N$  group is called an azo group, although the parent compound,  $HNNH$ , is called diimide. The more stable derivatives contain two aryl groups. The name azo comes from azote, the French name of nitrogen that is derived from the Greek a (not) + zoe (to live). As a consequence of  $\pi$ -delocalization, aryl azo compounds have vivid colours, especially reds, oranges, and yellows. Therefore, they are used as dyes, azo dyes for example Disperse Orange 1. Some azo compounds, eg. methyl orange, are used as acid-base indicators due to the different colours of their acid and salt forms. The development of azo dyes was an important step in the development of the chemical industry.



Azo pigments are colorless particles (typically earths or clays), which have been colored using an azo compound. Azo pigments are important in a variety of paints including artist's paints. They have excellent coloring properties, again mainly in the yellow to red range, as well as lightfastness. The lightfastness depends not only on the properties of the organic azo compound, but also on the way they have been adsorbed on the pigment carrier. Azo pigments are advantageous because they are non-toxic.

### **Azoic dye, Ice colour, Ingrain colour, Ingrain dye, Naphtol dyes**

*Aatcc.org*

an insoluble azo compound developed, in situ, on a substrate by chemically reacting an azoic diazo component (diazotized amine) with an azoic coupling component.

*answers.com/topic/azoic-dye*

A water-insoluble azo dye that is formed by coupling of the components on a fiber. Also known as ice color; ingrain color.

*/inkhi.tripod.com/acads/seminar*

Azoic dyes(also called naphthols or "ice colors")are produced through an in-situ process which creates the colored material directly on the fabric by coupling a C.I. Azoic-Diazo component and a C.I. coupling component. The cloth first is impregnated with the coupling component and then immersed in an ice water solution of the diazonium salt prepared from the azoic-diazo component. Major application of Azoic dyes is the dyeing and printing of cellulosic fibres especially cotton, giving shades of a high standard of fastness to light and wet processing. They give bright, intense hues particularly in the yellow, orange and red ranges.

*list.emich.edu/~dyers/pdfs/dyeglossary.PDF*

a term generally applied to a class of dyes based on application method; sometimes called naphthol dyes Azoic dyes are actually chemically synthesized inside the fibre, and are not truly dyes, but insoluble pigments. The soluble "naphthol" component is applied to the fibre, then a solution of "diazo salt" is used to develop the color. "Azoic" should be used only for this type of dye, not for azo dyes in general. These dyes are used commercially, especially for reds, but are not readily available to artists. The components used can be very toxic before they react to form the pigment.

*Weavers.org.uk*

A range of dyestuffs, which are formulated within the fibre by combining two components. The production of an insoluble azo compound on a substrate by interaction of a diazotized amine (azoic diazo component) and a coupling component (azoic coupling component). Also known as ice colours because of the necessity of lowering the temperature during processing. Traditionally used in the production of African prints, they have been superseded by other dyestuffs and become uneconomic, their use having declined.

### **Azo-free dyes, Azo-free colourants**

*nicefashion.org/en/resources/dictionary.html*

Azo-free colorants are dyes and pigments that are free of the nitrogen-based compounds aromatic amines, also referred to as "Azos". These compounds are toxic and banned in the EU due to their mutagenic, carcinogenic and often allergic properties. These dyes are not biodegradable.

*octoberonline.wordpress.com/2008/05/08/a-z-of-ethical-terms/*

The manufacture and use of synthetic dyes are two of the world's most polluting industries and azo dyes make up around 70% of all dyes used to colour fabric. There are serious concerns about the safety of azos. Most azos are water-soluble and there is the risk that carcinogenic chemicals from these dyes can be absorbed by the body through skin contact. Dye house workers have been known to suffer from asthma, allergies, birth defects and

reproductive damage. Alongside the human cost, considerable environmental damage is caused by chemicals from these dyes. GOTS prohibits the use of all amine releasing azo dyes and many companies are choosing to ban azos themselves.

*pristineplanet.com/meaning\_of\_green.asp*

Azo dyes are any synthetic dyes whose molecular structure contains a nitrogen group. They comprise approximately 70 percent of all fabric coloring dyes, even though there is considerable concern about their carcinogenic status, water solubility, skin absorption potential, and pollution during manufacture and usage.

*thebedlinencompany.com/about.htm*

Azo dyes and pigments are used to colour textiles and plastics. Some of the by products such as chlorinated aromatic amines are toxic and may be potential carcinogens. The European Commission has recently passed directive 76/769EEC which bans the usage of certain Azo dyes for use in any textile or leather product which may come in "direct or prolonged" contact with the skin or mouth. It is very important that Azo Dyes and Pigments resist biodegradation under aerobic conditions so they are difficult to remove from the ecosystem.

### **Azoic composition**

*Aatcc.org*

a physical mixture of an azoic coupling component and a stabilized azoic diazo component which produces, in situ, an insoluble azo colorant in both cellulosic and synthetic substrates

### **Azoic dyeing**

*Apparelsearch*

A dyeing technique in which an insoluble azo dye is produced directly onto or within the fibre. This is achieved by treating a fibre with a diazo component and a coupling component. With suitable adjustment of dyebath conditions the two components react to produce the required insoluble azo dye. This technique of dyeing is unique in that the final colour is controlled by the choice of the diazo and coupling components.

*Colour glossary*

The production of an insoluble azo compound on a substrate by interaction of a diazotised amine (azoic diazo component) and a coupling component (azoic coupling component).

*Future textiles*

The production of an insoluble azo compound in a substrate by interaction of a diazotized amine (azoic diazo component) and a coupling component (azoic coupling component).

*Mijnwoordenboek*

The production of an insoluble azo compound on a substrate by interaction of a diazotized amine(azoic diazo component)and a coupling component(azoic coupling component).

*Wikipedia*

Azo dyeing is a technique in which an insoluble azoic dye is produced directly onto or within the fibre. This is achieved by treating a fibre with both diazoic and coupling components. With suitable adjustment of dyebath conditions the two components react to produce the required insoluble azo dye. This technique of dyeing is unique, in that the final color is controlled by the choice of the diazoic and coupling components.

### **Azoton**

*resil.com/c.htm*

A cyanoethylated cotton product. The technique for producing azoton includes the reaction of ordinary cotton with a chemical compound, acrylonitrile. The product of this reaction is a new fibre resembling cotton but having many improved properties.

