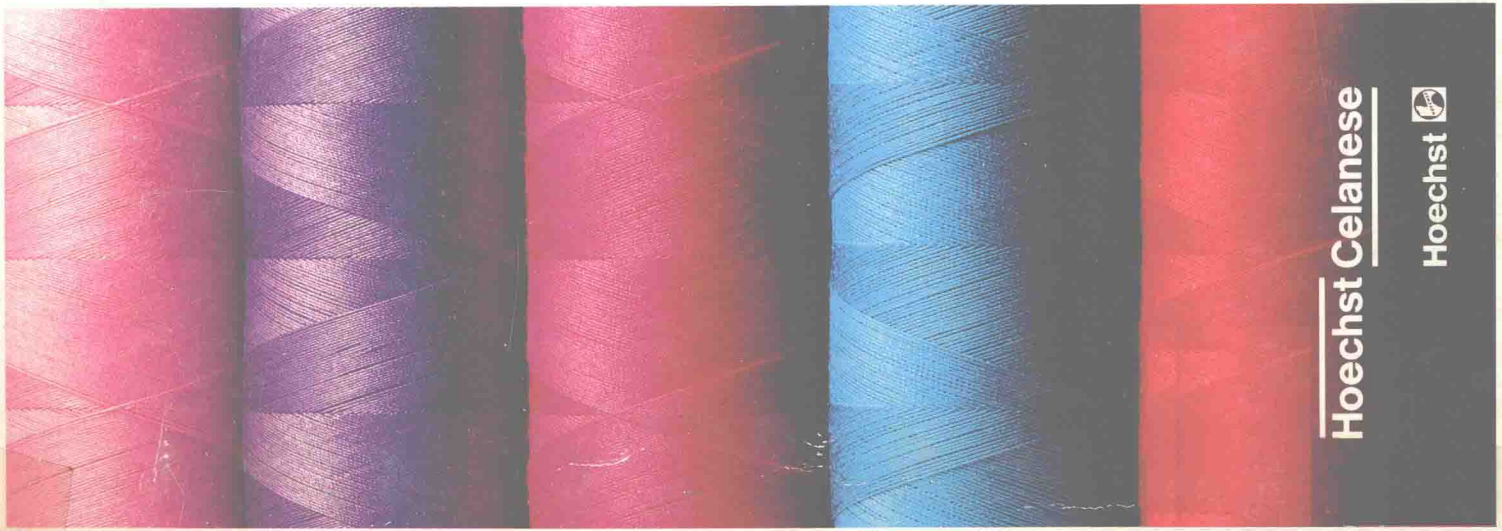
Dictionary

Of Fiber & Textile Technology



Dictionary
Of Fiber & Textile Technology

Hoechst Celanese

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Foreword

This *Dictionary of Fiber and Textile Technology* is intended to be a convenient reference for textile terminology. Although it covers all types of textile terms broadly, its special emphasis is on manufactured fibers—what they are, how they are made, and how they are used.

Formerly the *Man-Made Fiber and Textile Dictionary,* the first and second editions were published by the former Celanese Corporation* to provide a source for employees. The third edition was published in response to numerous requests from customers and others in the textile industry for an up-to-date glossary of terms encountered in the manufactured fiber and textile trades. To enhance its usefulness, the dictionary was expanded and illustrated.

This current edition has been updated and further expanded to cover recent developments in fiber-forming polymers, new commercially manufactured fibers, textile equipment advances, and new applications for textile materials such as geotextiles and advanced composites. New diagrams have been added to illustrate these developments. We have attempted to convey as much basic information as is possible without making the book cumbersome.

As in previous editions, generic terms such as dyeing and knitting are handled comprehensively with specific terms presented under one heading. The more widely used manufactured fibers are listed by their Federal Trade Commission generic names and definitions, in most cases followed by a brief description of their manufacture, characteristics, and applications. In the Appendix are abbreviations, equivalent weights and measures, and various conversion tables and formulas needed by the textile technologist.

We hope that this dictionary will help to familiarize you with the language of textiles. Only through you, can we determine its value, and we therefore invite your comments.

*In 1987, Celanese Corporation merged with American Hoechst Corporation to form Hoechst Celanese Corporation.

A

ABNORMAL CRIMP: 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.

ABRADED YARN: 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.

ABRASION MARK: An area where a fabric has been damaged by friction.

ABRASION RESISTANCE: The ability of a fiber or fabric to withstand surface wear and rubbing.

ABSORBANCE: 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.

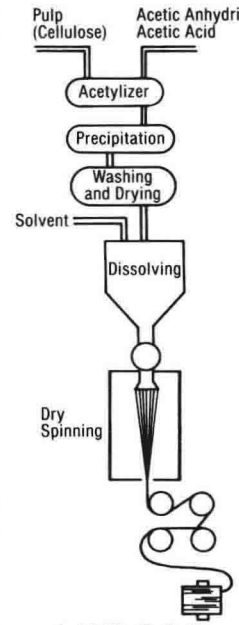
ABSORBENCY: The ability of one material to take up another material.

ABSORPTION: The process of gases or liquids being taken up into the pores of a fiber, yarn, or fabric. (Also see ADSORPTION.)

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

ACETATE FIBER: 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. These filaments are simultaneously twisted and wound onto a bobbin in the form of yarn which is 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.

CHARACTERISTICS: Acetate fabrics are fast-drying, wrinkle and shrinkage resistant, crisp or soft in hand depending upon the end use, and luxurious in appearance.



Acetate Fiber Production

END USES: The end uses of acetate include lingerie, dresses, blouses, robes, other apparel, linings, draperies, bedspreads, upholstery, carpets, umbrellas, formed fabrics, and cigarette filters.

ACETIC ACID: An organic acid (CH_3COOH) 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.

ACETIC ANHYDRIDE: Anhydrous acetic acid [$(CH_3CO)_2O$]. It is used in the acetylation process in the manufacture of cellulose acetate.

ACETONE: Dimethyl ketone (CH_3COCH_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°C).

ACETONE RECOVERY: A process for reclaiming the acetone solvent from acetate fiber or plastics manufacture. Usually the recovery process consists of adsorption by activated carbon and redistillation.

ACETYL: The radical ($CH_3CO–$) of acetic acid.

ACETYLATION: A chemical reaction whereby the acetyl radical is introduced into a compound, as in the conversion of cellulose to cellulose acetate.

ACETYLATOR: A chemical-reaction vessel in which cellulose pulp and acetic anhydride are combined to form cellulose acetate.

ACETYL VALUE: A measure of the degree of esterification or combination of acetyl radicals with cellulose in acetate or triacetate products.

ACID-DYEABLE VARIANTS: Polymers modified chemically to make them receptive to acid dyes.

ACID DYES: See DYES.

ACID FADING: See GAS FADING.

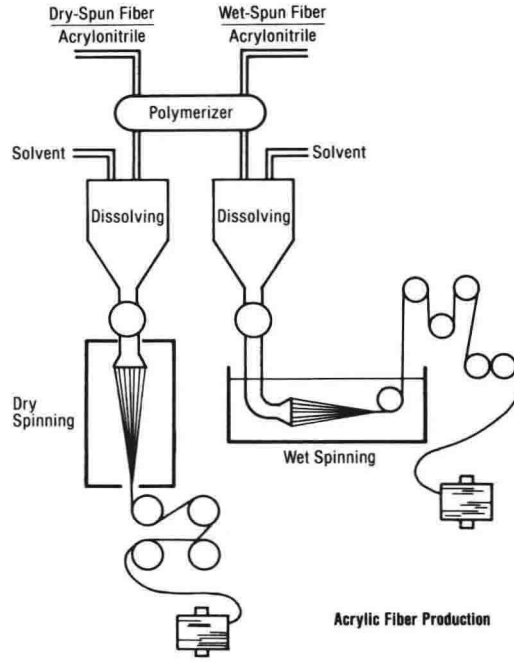
ACIDIC: A term describing a material having a pH of less than 7.0 in water.

ACID RECOVERY: 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 RESISTANCE: 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).

ACRYLIC FIBER: 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 [$–CH_2–CH(CN)–$] (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.



Acrylic Fiber Production

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 which 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.

ACRYLIC RESIN: A polymer of acrylonitrile, used in the production of manufactured fibers, as a fabric finish and as a size.

ACRYLONITRILE: A colorless, volatile, flammable liquid (CH_2=CHCN) used as a raw material in the manufacture of acrylic polymers and fibers.

ACTINIC DEGRADATION: See ULTRAVIOLET DEGRADATION.

ACTINIC RESISTANCE: See ULTRAVIOLET RESISTANCE.

ACTION STRETCH: 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.

ACTIVATED CARBON: 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.

ADDITION POLYMERIZATION: 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.

ADDITIVE: 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.

ADHESION: The force that holds different materials together at their interface and resists separation into two layers.

ADHESION PROMOTERS: 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.)

ADHESIVE ACTIVATED YARNS: Yarns treated by the fiber manufacturer to promote better adhesion to another material such as rubber and/or to allow easier processing.

ADHESIVE MIGRATION: In nonwovens, the movement of adhesive together with its carrier solvent in a fabric during drying, giving it a nonuniform distribution within the web, usually increasing to the outer layers.

ADHESIVES: In textiles, materials which cause fibers, yarns, or fabrics to stick together or to other materials.

ADIPIC ACID: 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.

ADSORPTION: The attraction of gases, liquids, or solids to surface areas of textile fibers, yarns, fabrics, or any material. (Also see ABSORPTION.)

ADVANCED COMPOSITE: Polymer, resin, or other matrix-material system in which reinforcement is accomplished via high-strength, high-modulus materials in continuous filament form or in discontinuous form such as staple fibers, fibrets, and in-situ dispersions. (Also see COMPOSITE.)

AESTHETICS: In textiles, properties perceived by touch and sight, such as the hand, color, luster, drape, and texture of fabrics or garments.

AFFINITY: Chemical attraction; the tendency of two elements or substances to unite or combine, such as fiber and dyestuff.

AFTERGLOW: 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.

AFTERTREATMENT: 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.

AGEING: 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.

AGER: A steam chamber used for ageing printed or padded material.

AGGLOMERATION: A cluster of particles or fibers.

AGITATE: To stir or to mix, as in the case of a dyebath or solution.

AIR BAG: 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.

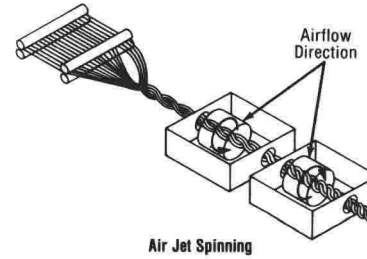
AIR BRUSHING: Blowing color on a fabric or paper with a mechanized pneumatic brush.

AIR CONDITIONING: 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.

AIR ENTANGLED YARNS: See COMPACTED YARNS.

AIR FORMING: 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.

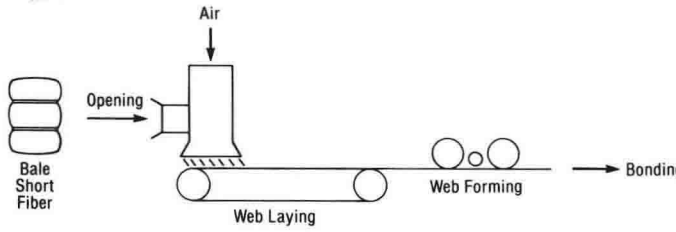
AIR JET SPINNING: A spinning system in which yarn is made by wrapping fibers around a core stream of fibers with compressed air. In this process, the fibers are drafted to appropriate sliver size, then fed to the air jet chambers where they are twisted, first in one direction, then in the reverse direction in a second chamber. They are stabilized after each twisting operation.



Air Jet Spinning

AIR JET TEXTURING: See TEXTURING.

AIR-LAID NONWOVENS: Fabrics made by an air-forming process (q.v.). The fibers are distributed by air currents to give a random orientaton within the web and a fabric with isotropic properties.



Air-Laid Nonwoven Process

AIR PERMEABILITY: 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.

AIRPLANE FABRIC: 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.

AIR-SUPPORTED ROOF: A fabric-based roofing system that is supported and held in place by air pressure.

ALBATROSS: 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.

ALGINATE FIBER: 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.

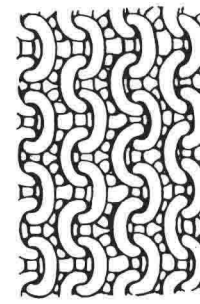
ALKALINE: A term used to describe a material having a pH greater than 7.0 in water.

ALKYLATION: The introduction of an alkyl radical into an organic molecule.

ALLOY: 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.

ALPACA: 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.)

ALPACA STITCH: 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 Stitch

ALPHA CELLULOSE: 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.)

ALSIMAG®: 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.

ALTERNATING TWIST: A texturing procedure in which S and Z twist are alternately inserted in the yarn by means of a special heating arrangement.

AMBIENT CONDITIONS: See ATMOSPHERIC CONDITIONS.

AMINE END GROUP: The terminating ($-NH_2$) group of a nylon polymer chain. Amine end groups provide dye sites for polyamides.

AMORPHOUS: Noncrystalline, lacking regular geometrical shape. Used to describe certain regions in polymers.

ANGORA: 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.

ANHYDRIDE: A compound formed by abstraction of water, usually from an acid. Example: acetic anhydride, which is used in converting cellulose to cellulose acetate.

ANIDEX FIBER: 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, (CH_2=CH–COOH) (FTC definition).

ANILINE DYES: See DYES.

ANIMAL FIBERS: Fibers of animal origin such as wool, alpaca, camel hair, and silk.

ANION: A negatively charged ion.

ANISOTROPIC: 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.

ANTHRAQUINONE DYES: See DYES.

ANTIBACTERIAL FINISH: A treatment of a textile material to make it resistant to, or to retard growth of, bacteria.

ANTICHLOR: A chemical, such as sodium thiosulfate, used to remove excess chlorine after bleaching.

ANTIFELTING AGENTS: Products that prevent or minimize matting and compaction of textile materials.

ANTIFOAMING AGENT: 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.

ANTIOXIDANT: A substance to retard deterioration (of fiber, fabrics, finishes, etc.) resulting from reaction with oxygen.

ANTISOILING PROPERTIES: The properties of textile materials whereby they resist deposition of dirt and stains.

ANTISTAINING PROPERTIES: The ability of a textile to resist the deposition of oil- or water-borne stains.

ANTISTATIC AGENT: A reagent capable of preventing, reducing, or dissipating static electrical charges that may be produced on textile materials.

ANTISTATIC PROPERTIES: The ability of a textile material to disperse an electrostatic charge and to prevent the buildup of static electricity.

APPLIQUÉ: A design made separately and then sewn on a cloth or garment.

APRON MARK: See DECATING MARK.

ARACHNE MACHINE: 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.)

ARAMID FIBER: 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.

ARGYLE: A pattern consisting of diamond shapes of different colors knit in a fabric.

ARTIFICIAL TURF: A manufactured carpet having the appearance of grass. Used to replace grass in sports arenas, yards, etc. (Also see RECREATIONAL SURFACES.)

ART LINEN: A plain-weave, softly finished fabric used either bleached or unbleached as a base fabric for needlework.

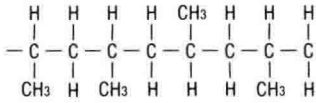
ASBESTOS: A nonmetallic mineral fiber which is nonflammable. The fiber is woven into fabrics and used for theater curtains and industrial uses where flame-resistant materials are needed.

ASPECT RATIO: 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.

ASPHALT OVERLAY FABRICS: See GEOTEXTILES.

ASTRAKHAN CLOTH: 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 simulates the pelt of the astrakhan lamb.

ATACTIC POLYMER: 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.)



Atactic Structure

ATMOSPHERIC CONDITIONS: In general, the relative humidity, barometric pressure, and temperature existing at a given time.

ATMOSPHERIC FADING: See GAS FADING.

ATTRITION MILLS: 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.

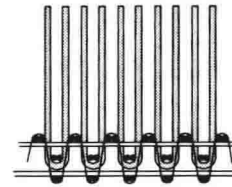
AUTOCLAVE: 1. An apparatus for carrying out certain finishing operations, such as pleating and heat-setting, under pressure in a superheated steam atmosphere. **2.** Apparatus for polymerizing condensation polymers such as nylon or polyester at any pressure above or below atmospheric.

AVERAGE STIFFNESS: 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 TOUGHNESS: See TOUGHNESS.

AXIAL YARN: A system of longitudinal yarns in a triaxial braid that are inserted between bias yarns.

AXMINSTER CARPET: 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.


Axminster Carpet Construction

AZLON FIBER: 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.

AZO DYES: See DYES.

AZOIC DYES: See DYES, Naphthol Dyes.

B

BACKCOATING: The application of latex or adhesive to the back of a carpet to anchor the tufts, usually followed immediately by addition of a secondary backing material such as woven jute or nonwoven polypropylene.

BACKED CLOTH: A material with an extra warp or filling added for weight and warmth. Satin-weave and twill-weave constructions are frequently used in the design of backed cloth because they are relatively resistant to the passage of air.

BACKFILLING: A solution composed of varying amounts of cornstarch, China clay, talc, and tallow that is applied to the back side of low-grade, low-cost cloth to change its hand, improve its appearance, and increase its weight.

BACKING: 1. A general term for any system of yarn which interlaces on the back of a textile material. **2.** A knit or woven fabric or plastic foam bonded to a face fabric. **3.** A knit or woven fabric bonded to a vinyl or other plastic sheet material. **4.** See CARPET BACKING.

BACK-SIZING: See FILLER.

BACKSTITCH: See PURL.

BACK WARP: The warp which, along with the back filling, actually forms the second face (back) of double, triple, or quadruple fabrics.

BACKWINDING: 1. Rewinding yarn or fiber from one type of package to another. **2.** Winding yarn as it is deknit.

BACTERICIDAL FIBER: Fiber used for medical applications, socks, shoe liners, etc., in which bactericides are introduced directly into the fiber matrix as opposed to fiber simply having a bactericidal finish applied.

BAGGING: 1. A fabric woven in cylindrical or tubular form on an ordinary cam loom and used for grain bags, etc. **2.** Fabric bulging caused by extension at the knees, elbows, etc., of a garment lacking dimensional stability.

BAGGY CLOTH: A fabric that does not lie flat, caused by sections of tight or loose yarns in either the warp or the filling.

BAGGY SELVAGE: See SLACK SELVAGE.

BALANCED CLOTH: A term describing a woven fabric with the same size yarn and the same number of threads per inch in both the warp and the filling direction.

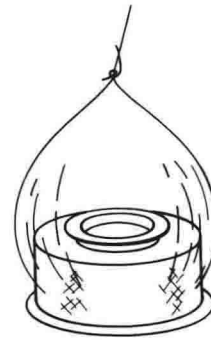
BALANCED TWIST: In a plied yarn or cord, an arrangement of twist which will not cause the yarn or cord to twist on itself or kink when held in an open loop.

BALE: A bag, sack, square or oblong box, or package into which silk, staple fibers, or tow are compressed. The common shipping and storage package for these fibers.

BALLING UP: A defect in which loose or frayed fibers form into a ball and are then woven into the fabric.

BALL MILL: A standard method of reducing water-insoluble substances such as pigments or dyestuffs to a fine state of division. It consists of a cylinder, rotating on an axis, partly filled with steel balls, porcelain balls, or common pebbles. The controlling factors are size of balls, relative volumes occupied by balls and substance, type and quality of substance, and rate and time of rotation.

BALLOON: The curved paths of running yarns about the take-up package during spinning, downtwisting, plying, or winding, or while they are being withdrawn over-end from packages under appropriate yarn-winding conditions.



Balloon

BALLOON FABRIC: A plain-weave cloth having the same breaking strength in each direction. This fabric is made from fine (60's to 100's) combed yarn woven to constructions of 92 x 108 to 116 x 128. Vulcanized balloon fabric is used for air cells in planes and barrage balloons.

BALL WARP: Parallel threads in the form of a twistless rope wound into a large ball. When wound mechanically with quick traverse a ball warp may be made in the form of a large cylindrical package.

BANDING, HEAVY TOW: Nonuniform distribution of filaments across tow-band width.

BANDLE: A coarse homespun linen made on narrow hand looms in Ireland.

BANK: Another name for a yarn creel.

BARATHEA: 1. A silk, rayon, or manufactured fiber necktie fabric with a broken rib weave and a characteristic pebbly appearance. **2.** A fine, dress fabric with a silk warp and worsted filling, woven in a broken filling rib which completely covers the warp. **3.** A smooth-faced worsted uniform cloth with an indistinct twilled basket weave of fine two-ply yarns.

BAR CODE: Adjacent stripes of varying width used to represent alpha-numeric characters. These permit rapid reading by means of electronic scanners.

BARKING: The removal of bark from wood prior to pulping.

BARRÉ: A defect characterized by bars or streaks, fillingwise in woven fabrics or coursewise in weft-knit fabrics, caused by uneven tension in knitting, defective yarn, improper needle action, or other similar factors.

BASE FABRIC: In coated fabrics, the underlying substrate (q.v.).

BASIC: A term describing substances having an alkaline nature. Bases may or may not be water soluble.

BASIC DYES: See DYES.

BASIS WEIGHT: The weight of a unit area of fabric. Examples are ounces per square yard and grams per square centimeter.

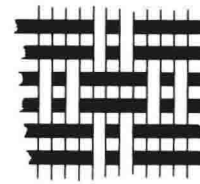
BASKET STITCH: In this knit construction, purl and plain loops are combined with a preponderance of purl loops in the pattern courses to give a basket-weave effect.

Basket Stitch

BASKET WEAVE: A variation of the plain weave in which two or more warp and filling threads are woven side by side to resemble a plaited basket. Fabrics have a loose construction and a flat appearance and are used for such things as monk's cloth and drapery fabrics.

BAST FIBER: Any of certain strong, woody fibers used in making rope, cordage, etc.

BATHROBE BLANKETING: A double-faced fabric woven with a tightly twisted spun warp and two sets of soft spun filling yarns. The fabric is thick and warm and its filling yarns are frequently napped to produce a soft surface. Today's blankets are made of spun polyester, acrylic, or polyester/cotton blends.



Basket Weave

BATIK: See DYEING.

BATISTE: 1. A sheer, woven, mercerized fabric of combed cotton or polyester/cotton resembling nainsook, only finer, with a lengthwise streak. **2.** A rayon fabric decorated with dobby woven stripes and Jacquard florals. **3.** A smooth, fine, woolen fabric, lighter than challis and very similar to nun's veiling.

BATTING: A soft, bulky assembly of fibers, usually carded. Battings are sold in sheets or rolls and used for warm interlinings, comforter stuffings, and other thermal or resiliency applications.

BAYARDERE: A very broad term for stripes that run crosswise in a knit or woven fabric.

BCF YARNS: Bulked continuous filament yarns for carpet trade, usually nylon, polypropylene, or polyester.

BEADED SELVAGE: See LOOPY SELVAGE.