CABLED YARN: A yarn formed by twisting together two or more plied yarns.

CABLE STITCH: A knit effect produced by crossing a group of stitches over a neighboring stitch group.

CABLE TWIST: A construction of thread, yarn, cord, or rope in which each successive twist is in the direction opposite the preceding twists; i.e., and S/Z/S or Z/S/Z construction.

CALENDERING: A mechanical finishing process for fabrics to produce special effects, such as high luster, glazing, moiré, and embossed effects. In this operation, the fabric is passed between heated rolls under pressure.

CALENDERING ROLLS: 1 The main cylinders on a calender. 2. Smooth or fluted rolls used on various fiber-processing machines such as pickers and cards to compress the lap or sliver as it passes between them.

CAM: A rotating or sliding piece or projection used to impart timed or periodic motion to other parts of a machine. It is used chiefly as a controlling or timing element in machines rather than as part of a power transmission mechanism. Cams are particularly important in both knitting and weaving machinery.

CAMBRIC: A soft, white, closely woven, cotton or cotton blend fabric that has been calendered on the right side to give it a slight gloss. Cambric is used extensively for handkerchiefs.

CAN: A cylindrical container, about 3 feet high and 10 to 12 inches in diameter that is used to collect sliver delivered by a card, drawing frame, etc.

CANDLE FILTER: A small filter interposed between the spinning pump and spinning jet to effect final filtration of the spinning solution prior to extrusion.

CANDLE WATER TEMPERATURE: The temperature of the water surrounding the candle filter or within the heating jacket during fiber extrusion.

CANDLEWICK FABRIC: An unbleached muslin base fabric used to produce a chenille-like fabric by applying candlewick (heavy-plied yarn) loops and cutting the loops to give a fuzzy effect.

CAPACITANCE: The measure of the ability of a nonconductor to store electrical energy by means of the potential difference across the surfaces of the nonconductor.

CAPROLACTAM: A white, crystalline, cyclic amide (C6H11NO) which yields L-amino-caproic acid on hydrolysis and is used as a raw material in the manufacture of nylon 6.

CAP SPINNING: A system of spinning employing a stationary, highly polished metal cap just large enough to fit over the take-up bobbin, which revolves at a high rate of speed. The cap controls the build and imparts sufficient tension to the yarn for winding. The yarn is twisted and wound onto packages simultaneously.

CARBON-ARC LAMP: A type of fading lamp which utilizes an arc between two carbon electrodes as the source of radiation.

CARBON FIBER: A high-tensile fiber or whisker made by heating rayon or polyacrylonitrile fibers or petroleum residues to appropriate temperatures. Fibers may be 7 to 8 microns in diameter and are more that 90% carbonized.

CARBONIZING: A chemical process for eliminating cellulosic material from wool or other animal fibers. The material is reacted with sulfuric acid or hydrogen chloride gas followed by heating. When the material is dry, the carbonized cellulosic material is dust-like and can be removed.
**CARBOXYL END GROUP:** The chain-terminating (-COOH) group found in polyamide and polyester polymers.

**CARBOXYMETHYL CELLULOSE:** An acid ether derivative of cellulose formed by the reaction of alkali cellulose with chloroacetic acid. The sodium salt of this compound is commonly used as a stabilizer or an emulsifier.

**CARD:** A machine used in the manufacture of staple yards. Its functions are to separate, align, and deliver the fibers in a sliver form and to remove impurities. The machine consists of a series of rolls, the surfaces of which are covered with many projecting wired or metal teeth. Short staple systems employ flat strips covered with card clothing rather that small rolls.

**CARD CLOTHING:** The material used to cover the working surfaces of the card, i.e., cylinder and rolls or flats. The clothing consists of either wire teeth set in a foundation fabric or rubber, or narrow serrated metal flutes which are spirally arranged around the roll. The metallic wire has the appearance of band-saw blade.

**CARDED YARN:** A cotton yarn that has been carded but not combed. Carded yarns contain a wider range of fiber lengths and, as a result, are not as uniform or as strong as combed yarns. They are considerably cheaper and are used in medium and course counts.

**CARDIGAN:** 1. A modification of the rib-knitting stitch to allow tucking on one (half cardigan) or both (full cardigan) sets of needles. 2. A sweater that buttons down the front.

**CARDING:** A process in the manufacture of spun yarns whereby the staple is opened, cleaned, aligned, and formed into a continuous, untwisted strand called a sliver.

**CARE LABEL:** The label that gives directions for cleaning, ironing, and otherwise maintaining a fabric of fiber product.

**CARPET BACKING:** A primary backing through which the carpet tufts are inserted is always required for tufted carpets. The backing is usually made of woven jute or nonwoven manufactured fiber fabrics. A secondary backing, again made of jute or manufactured fibers, is normally added at the latex backcoating stage. Carpet backings are an important end use for nonwoven fabrics.

**CARPETS:** Heavy functional and ornamental floor coverings consisting of pile yarns or fibers and a backing system. They may be tufted or woven.

**CARPET UNDERLAY:** A separate fabric which is used to provide cushioning for carpet. Carpet underlays are made of hair and jute, sponge rubber, bonded urethane or foamed urethane.

**CARRIER:** 1. A product added to a dyebath to promote the dyeing of hydrophobic manufactured fibers and characterized by affinity for, and ability to swell, the fiber. 2. A moving holder for a package of yarn used on a braiding machine. 3. A term sometimes used to describe the tube or bobbin on which yarn is wound.

**CARRIERLESS DYEING VARIANTS:** Polymers that have been modified to increase their dyeability. Fibers and fabrics made from these polymers can be dyed at the boil without the use of carriers.

**CASHMERE:** The extremely soft hair of the Cashmere goat. Cashmere is often blended with sheep’s wool in fabrics.

**CATALYST:** A chemical that accelerates a reaction. The catalyst is not part of the reaction but increases the rate at which it takes place.

**CATIONIC DYEABLE VARIANTS:** Polymers modified chemically to make them receptive to cationic dyes.

**CAUSTIC SODA:** The common name for sodium hydroxide.
**Calavry Twill:** A pronounced, raised cord on a 63-degree twill weave characterizes this rugged cloth usually made from wool or wool blend yarns.

**Cellophane:** A generic term for regenerated cellulose film, which is used primarily for packaging. The film is transparent and may be dyed in many colors or coated to render it moisture proof or heat-sealable.

**Cellulose:** A carbohydrate which is the chief component of the cell walls of plants. Cellulose is found in wood and in cotton, linen, jute, hemp, and all of the bast, leaf, and stem fibers. It is a basic raw material in the manufacture of rayon, acetate, and triacetate fibers.

**Cellulosic Fiber:** A fiber composed of, or derived from, cellulose. Examples are cotton (cellulose), rayon (regenerated cellulose), acetate (cellulose acetate), and triacetate (cellulose triacetate).

**Ceramic Fiber:** An aluminum silicate fiber made by heating aluminum fluoride at 1000-1200°C with silica and water vapor. The crystals, or “whiskers,” obtained are up to 1 cm long and have high strength. Ceramic fibers are used in reinforced plastics.

**Chafed End:** A warp end that has been abraded during processing. It generally appears as a dull yarn often containing broken filaments.

**Chafed Fabric:** A fabric, coated with unvulcanized rubber, that is wrapped around the bead section of the tire before vulcanization of the complete tire. The purpose of the chafer fabric is to maintain an abrasion-resistant layer of rubber in contact with the wheel on which the tire is mounted.

**Chain Binders:** Yarns running in the warp direction on the back of a woven carpet which hold construction yarns together.

**Challis:** A very soft, lightweight, plain-weave fabric, usually printed with a delicate floral pattern. The name is derived from the Anglo-Indian term “shalee” meaning soft.

**Change in Length on Untwisting:** The increase or decrease in length measured when a specimen is untwisted. The change is expressed as the percentage extension or contraction of the nominal gauge length of the specimen, i.e., specimen length prior to untwisting.

**Char Length:** In flammability testing, the distance from the edge of the sample exposed to the flame to the upper edge of the charred or void area.

**Cheese:** A cylindrical package of yarn wound on a flangeless tube.

**Cheesecloth:** A low-count, plain weave, soft cotton or cotton blend cloth also known as gauze.

**Chemical Crimping:** A crinkled or puckered effect in fabric obtained by printing sodium hydroxide onto the goods in a planned design. When the material is washed, the part to which the paste has been applied will shrink and cause untreated areas to pucker. The same effect is obtained with a caustic resist print and a sodium hydroxide bath.

**Chemical Finishing:** Processes in which additives are applied to change the aesthetic and functional properties of a material. Examples are the application of antioxidants, flameretardant, wetting agents, and stain and water repellents.

**Chemical Stability:** Degree of resistance of a material to chemicals, such as acids, bases, solvents, oils, and oxidizing agents, and to chemical reactions, including those catalyzed by light.

**Chenille:** 1. A yarn with a fuzzy pile protruding from all sides, cut from a woven chenille weft fabric. Chenille yarns are made from all fibers, and they are used as filling in fabrics and for embroidery, fringes, and tassels. 2. Fabric woven with chenille yarn.
CHEVIOT: A rugged tweed made from uneven yarn, this fabric usually has a rather harsh hand.

CHEVRON: A broad term applied to prints in zigzag stripes or to herringbone weaves.

CHIFFON: A plain weave, lightweight, sheer, transparent fabric made from fine, highly twisted yarns. It is usually a square fabric, i.e., having approximately the same number of ends and picks and the same count in both warp and filling.

CHINCHILLA CLOTH: A heavy, twill weave, filling-pile fabric with a napped surface that is rolled into little tufts or nubs. The material is frequently double faced with a knitted or woven, plain or fancy back. Chinchilla cloth is used primarily in coats. The term is also used to refer to a knitted woolen fabric having a napped surface.

CHINO: A cotton or cotton blend twill used by armies throughout the world for summer-weight uniforms. Chino is frequently dyed khaki.

CHINTZ: A glazed fabric produced by friction calendering. Unglazed chintz is called cretonne.

CHIP: 1. The form of polymer feedstock used in fiber production. 2. The feedstock for a pulp digestor. 3. A defect in a nonwoven fabric.

CHLORINE RETENTION: A characteristic of several resins and textile finishes whereby they retain some of the chlorine from bleach. On heating of the goods, the chlorine forms hydrochloric acid, causing tendering of the cloth. This is especially true of certain wrinkle resistant finishes for cotton and rayon.

CHOKED FLYERS: A situation in which roving will not pass through the flyer channels because of heavy or cockled conditions caused by such factors as uneven drafting, waste, overcut fibers, and improper finish.

CHUTE-FEED SYSTEM: Pneumatic fiber transport system used in linking textile processing equipment or operations, especially opening, blending, and carding.


CIRÉ: A brilliant patent leather effect produced by application of wax, heat, and pressure.

CLIPMARK: Visible deformation of selvage due to pressure from a tenter clip.

CLO: A unit of thermal resistance. The insulation needed to keep an individual producing heat at the rate of 58W/m2 comfortable of 21°C air temperature with air movement of 0.1 m/s. One clo is roughly equal to the insulation value of typical indoor clothing.

CLOQUÉ FABRIC: From the French term for blistered, it refers to any fabric whose surface exhibits an irregularly raised blister effect.

CLOTH: A generic term embracing all textile fabrics and felts. Cloth may be formed of any textile fiber, wire, or other material, and it includes any pliant fabric woven, knit, felted, needled, sewn, or otherwise formed.

CLOUDY WEB: An uneven or irregular web from the doffer of a card.

CLUMPS: In nonwoven fabrics, an irregularly shaped grouping of fibers caused by insufficient fiber separation.

COACERVATION: The collection of colloidal particles into droplets held together by electrostatic attraction. This term for the equilibrium state of colloidal systems was introduced in 1929.

COAGULATION: The precipitation of particles from a suspension in a liquid, usually resulting in formation of a gel.
COAGULATION BATH: A liquid bath that serves to harden viscous polymer strands into solid fibers after extrusion through a spinneret. Used in wet spinning processes such as in rayon or acrylic fiber manufacture.

COALESCED FILAMENTS: Filaments stuck together by design or accident during the extrusion process.

COALESCENCE: Merging of two or more substances into a larger substance, i.e., coalesced filaments.

COATING: The application of a semi-liquid material such as rubber, polyvinyl chloride, or polyurethane to one or both sides of a textile material. Once the coating has been dried (and cured, if necessary), it forms a bond with the fabric.

COCKLED YARN: Spun yarn in which some fibers do not lie parallel to the other fibers but instead are curled and kinked, forming a rough and uneven surface on the yarn. The general cause is fiber overcut to the extent that the drafting rolls catch and hold both ends of the fiber at the same time while attempting to draft, resulting in slippage or breakage.

COCKLING: A crimpiness or pucker in yarn or fabric usually caused by lack of uniform quality in the raw material used, improper tension on yarn in weaving, or weaving together yarns of different numbers.

COHESION: The force that holds fibers together during yarn manufacturing or processing. It is usually a function of lubricant (type and amount) and fiber crimp.

COILING: The depositing of sliver into cylindrical cans in helical loops. This arrangement permits easy removal for further processing.

COLOR ABRASION: Color changes in localized areas of a garment resulting from differential wear.

COLORIMETER: 1. A device that specifies color by measuring the intensities of the three primary colors that compose the color under study. 2. An instrument for measuring the concentration of a known substance in solution by comparing the liquid’s color with standard colors.

COLORIMETRY: Any technique for evaluating a given color in terms of standard colors.

COLOR STRIPPER: A chemical used to remove some or all of the dyestuffs from a fiber, yarn, or fabric so that a dyeing defect can be corrected, a shade lightened, or another color applied.

COLOUR INDEX (CI): A listing of dyes and chemical structures published by the Society of Dyers and Colourists. Each structure is assigned a name according to chemical composition. Each dye is assigned a number according to its class and shade. A correlating structure number is given when available.

COMBED SLIVER: A continuous band of untwisted fiber, relatively free of short fibers and trash, produced by combing card sliver.

COMBED YARN: A yarn produced from combed sliver.

COMBINATION FABRIC: A fabric containing: (1) different fibers in the warp and filling (e.g., a cotton warp and a rayon filling), (2) ends of two or more fibers in the warp and/or filling, (3) combination yarns, (4) both filament yarn and spun yarn of the same or different fibers, or (5) filament yarns of two or more generic fiber types. Combination fabrics may be either knit or woven. They should not be confused with blend fabrics. Although blend fabrics also contain more than one fiber, the same intimately blended spun yarn is present in both warp and filling.

COMBINATION YARN: A piled yarn containing two or more yarns that vary in fiber composition, content, and/or twist level; or plied yarn composed of both filament yarn and spun yarn.
COMBING: A step subsequent to carding in cotton and worsted system processing which straightens the fibers and extracts nep, foreign matter, and short fibers. Combing produces a stronger, more even, more compact, finer, smoother yarn.

COMFORT: Performance parameter of apparel referring to wearability. Encompasses such properties as wicking, stretch, hand, etc.

COMMERCIAL ALLOWANCE: The commercial moisture regain plus a specific allowance for finish used in calculating the commercial or legal weight of a fiber shipment.

COMMERCIAL MOISTURE REGAIN: An arbitrary value adopted as the moisture regain to be used in calculating the commercial or legal weight of a fiber shipment.

COMMERCIAL WEIGHT: 1. In natural fibers, the dry weight of fibers or yarns plus the commercial moisture regain. 2. In manufactured fibers, the dry weight of staple spun yarns or filament yarns after scouring by prescribed methods, plus the commercial moisture regain.

COMMINGLED YARN: In aerospace textiles, two or more continuous multifilament yarns, the filaments of which have been intermixed with each other without adding twist or otherwise disturbing parallel relationship of the combined filaments. Usually consists of a reinforcing yarn, such as graphite or glass, and a thermoplastic matrix yarn.

COMPACTED YARNS: Air-jet interlaced yarns. Since the entanglement serves only as a substitute for twist, the degree of interlace or tangle is not as great as in air-jet bulked yarns.

COMPACTOR: A machine developed by Fabric Research Laboratories which is used to compact fabrics or to produce warp-stretch fabrics by means of forced crimp and/or shrinkage of the warp yarn.

COMPACT SPINNING PROCESS: A term generally referring to a spinning process carried out using any one of the several small spinning machines of compact design offered by equipment vendors as “packaged” units in which spinning and subsequent processing (drawing, crimping, cutting, etc.) are linked.

COMPATIBLE SHRINKAGE: A term used for bonded fabrics to indicate that the face fabric and lining have similar shrinkage. This is necessary to avoid puckering.

COMPLIANCE: The ability of a fiber to yield under stress; the ratio of the change in strain to the change in stress that produces it; the reciprocal of the textile modulus. Shear-yield strength of the matrix unless fibers are bonded in a load-transferring matrix. 3. A structure made by laminating a nonwoven fabric with another nonwoven, with other materials, or by impregnating a nonwoven fabric with resins.

COMPOSITE FIBERS: Fibers composed of two or more polymer types in a sheath-core or side-by-side (bilateral) relation.

COMPRESSIBILITY: Refers to the ease of reducing the bulk of fabric, carpet, batting, or other material. May be high or low, soft or hard.

CONDENSATION POLYMERIZATION: A polymerization process yielding a product in which the repeating unit has fewer atoms than the monomer or monomers. Generally, the separation of water or some other simple substance occurs as a result of the reaction, e.g., ethylene glycol in polyester production.

CONDITIONING: A process of allowing textile materials (staple, tow, yarns, and fabrics) to reach hygroscopic equilibrium with the surrounding atmosphere. Materials may be conditioned in a standard atmosphere (65%RH, 70°F) for testing purposes or in arbitrary conditions existing in manufacturing or processing areas.

CONE: A conical package of yarn, usually wound on a disposable paper core.
CONING: The transfer of yarn from skeins or bobbins or other types of packages to cones.

CONJUGATE FIBER: A two-component fiber with specific ability to crimp on hot or hot/wet treatment because of differential shrinkage.

CONJUGATE YARN: A yarn made from conjugate filaments.

CONSOLIDATION: Application of heat and pressure to form composite structures.

CONTACT ANGLE: The angle between the surface of a liquid and the surface of a partially submerged object or the container at the line of contact. The smaller the contact angle, the greater the wettability of the solid.

COP: 1. A headless tube upon which yarn or thread is wound. 2. Thread or yarn wound into the shape of a hollow cylinder with tapered ends. 3. Filling yarn wound upon a tapered tube (generally paper).

COPOLYMER: A polymer composed of a combination of more than one monomer (usually two). Copolymers are the basis of some manufactured fibers.

CORD: 1. The product formed by twisting together two or more plied yarns. 2. A rib on the surface of a fabric (e.g., corduroy and whipcord)

CORDUROY: A filling-pile fabric with ridges of pile (cords) running lengthwise parallel to the selvage.

CORE SPINNING: The process of making a corespun yarn. It consists of feeding the core yarn (an elastomeric filament yarn, a regular filament yarn, a textured yarn, or a previously spun yarn) into the front delivery roll of the spinning frame and of covering the core yarn with a sheath of fibers during the spinning operation.

CORE-SPUN YARN: A yarn made by twisting fibers around a filament or a previously spun yarn, thus concealing the core. Core yarns are used in sewing thread, blankets, and socks and also to obtain novelty effects in fabrics.

CORKSCREW TWIST: A place in yarn or cord where uneven twist gives a corkscrew-like appearance.

CORRUGATION MARK: A fabric defect consisting of a crimped, rippled, wavy, pebbled, or cockled area in the fabric spoiling the uniformity of the texture.

COT: The covering material used on various fiber-processing rolls, especially drawing rolls. Leather, cork, rubber, and synthetic materials are frequently employed.

COTTAGE STEamer: A chamber used for batch steaming of printed or dyed textiles. Cloth is looped on “poles” on a special cart which fits into the steamer for processing.

COTTON COUNT: The yarn numbering system based on length and weight originally used for cotton yarns and now employed for most staple yarns spun on the cotton, or short-staple, system. It is based on a unit length of 840 yards, and the count of the yarn is equal to the number of 840-yard skeins required to weigh 1 pound. Under this system, the higher the number, the finer the yarn.

COTTON FIBER: A unicellular, natural fiber composed of almost pure cellulose. As taken from plants, the fiber is found in lengths of 3/8 to 2 inches. For marketing, the fibers are graded and classed for length, strength, and color.

COUNT: 1. A numerical designation of yarn size indicating the relationship of length to weight. 2. The number of warp yarns (ends) and filling yarns (picks) per inch in a woven fabric, or the number of wales and courses per inch in a knit fabric. For example, a fabric count of 68 x 52 indicates 68 ends per inch in the warp and 52 picks per inch in the filling.

COURSE: The row of loops or stitches running across a knit fabric, corresponding to the filling in woven fabrics.
**Cover:** 1. The degree of evenness of thread spacing. 2. The degree to which underlying structure is concealed by the surface material, as in carpets, the degree to which pile covers backing. 3. The ability of a dye to conceal defects in fabric.

**Cover Factor:** The fraction of the surface area that is covered by yarns assuming round yarn shape.

**Coverstock:** A lightweight nonwoven material used to contain and conceal an underlying core material. Examples are the facing materials that cover the absorbent cores of diapers, sanitary napkins, and adult incontinence products.

**Cover:** A mediumweight to heavyweight wool or wool blend cloth woven with a steep twill from two or more shades of yarn-dyed fibers to produce a mottled or melange effect.

**Cowoven Fabric:** In aerospace textiles, a fabric in which a reinforcing fiber and a matrix fiber are adjacent to each other as one end in the warp and/or filling direction.

**Crab:** A hand device used to stretch carpets in a small area.

**Crabbing:** The process of heating wool or hair fabrics, under tension, in a hot or boiling liquid, then cooling under tension, to provide the fabric with dimensional stability for further wet processing.

**Crack:** A defect in a woven fabric consisting of an open fillingwise streak extending partly or entirely across the fabric.

**Crack Mark:** A sharp break or crease in the surface of a coated or laminated fabric.

**Crash:** A course fabric with a rough, irregular surface made from thick, uneven yarns.

**Crease:** A break or line in a fabric generally caused by a sharp fold. Creases may be either desirable or undesirable, depending upon the situation. A crease may be intentionally pressed into a fabric by application of pressure and heat and sometimes moisture.

**Crease-Resistant:** A term used to describe a fabric treated chemically to improve its resistance to and recovery from wrinkling.

**Crease Retention:** The ability of a fabric to maintain an inserted crease. Crease retention can be measured subjectively or by the relation of a crease in a subsequent state to the crease in the initial state. Crease retention may be strongly dependent on the conditions of use, e.g., normal wear, washing or tumble-drying.

**Creel:** 1. A framework arranged to hold slivers, rovings, or yarns so that many ends can be withdrawn smoothly and evenly without tangling. 2. A similar device used to aggregate sub-tows to tows in manufactured staple processing, especially polyester.

**Creeeling:** The mounting of supply packages in a creel to feed fiber to a process, i.e., beaming or warping.

**Crepe:** A lightweight fabric characterized by a crinkling surface obtained by the use of: (1) hard-twist filling yarns, (2) chemical treatment, (3) crepe weaves

**Crimp:** 1. The waviness of a fiber expressed as crimps per unit length. 2. The difference in distance between two points on an unstretched fiber and the same two points when the fiber is straightened under specified tension. Crimp is expressed as a percentage of the unstretched length. 3. The difference in distance between two points on a yarn as it lies in a fabric and the same two points when the yarn has been removed from the fabric and straightened under specified tension, expressed as a percentage of the distance between the two points as the yarn lies in the fabric.

**Crimp Amplitude:** The height of displacement of the fiber from its uncrimped condition.
CRIMP DEREGISTERING: The process of opening a tow band by causing the peaks and valleys of the crimp to lay randomly rather than uniformly.

CRIMP ENERGY: The amount of work required to uncrimp a fiber.

CRIMP FREQUENCY: The crimp level, or number of crimps per inch in yarn or tow.

CRIMPING: The process of imparting crimp to tow or filament yarn.

CRIMP SETTING: An aftertreatment to set the crimp in yarn or fiber. Usually heat and steam are used, although the treatment may be chemical in nature.

CRINKLE: 1. A wrinkled or puckered effect in fabric. It may be obtained either in the construction or in the finishing of the fabric. 2. The term is sometimes incorrectly used to describe the crimp of staple fiber.

CROCHETING: The interlocking of loops from a single thread with a hooked needle. Crocheting can be done either by hand or by machine.

CROCKING: The rubbing-off of dye from a fabric as a result of insufficient dye penetration or fixation, the use of improper dyes or dyeing methods, or insufficient washing and treatment after the dyeing operation. Crocking can occur under dry or wet conditions.

CROSS DIRECTION: The width dimension, within the plane of the fabric, that is perpendicular to the direction in which the fabric is being produced by the machine.

CROSS-FLOW QUENCH: In cooling extruded polymer filaments, refers to cooling air directed from one side cross the path of the filaments. There may be some type of suction on the opposite side to remove the heated air.

CROSS-LINKING: The stabilization of cellulosic or manufactured fibers through chemical reaction with certain compounds in such a way that the cellulose or manufactured polymer chains are bridged across or “crosslinked.” Cross-linking improves such mechanical factors as wrinkle resistance. Random cross-linking in manufactured polymers is undesirable and leads to brittleness and loss of tensile strength.

CROWSFEET: A fabric defect consisting of breaks or wrinkles of varying degrees of intensity and size, resembling bird’s footprints in shape, and occurring during wet processing of fabrics.

CRYSTALLINE: Made up of crystals. The term crystalline applies to sections of all chemical fibers, which consists of alternate crystalline and amorphous (noncrystalline) regions. These regions are influenced by manufacturing conditions and to some extent can be controlled. The degree of crystallinity influences the physical properties of fibers.

CRYSTALLINE GROWTH: 1. The expansion and development of a crystal. The process involves diffusion of the crystallizing material to special sites on the surface of the crystal, incorporation of the molecules into the surface at these sites, and diffusion of heat away from the surface of the crystal. 2. The transformation of disoriented molecules, usually of the same substance, to a higher state of order. This process generally occurs rapidly for small molecules; however, the process is slow for polymer molecules and is arrested at temperatures below the glass transition temperature.

CRYSTALLINITY: 1. The state of quality of being crystalline. 2. The extent to which a polymer exists in a lattice structure.

CRYSTALLIZATION: The formation of highly-ordered substances (crystals) from solutions or melts. In polymers, crystalline areas are interspersed with amorphous areas in a lattice-like network.

CUPIONI: A type of specialty or novelty yarn having slubs or enlarged sections of varying length.
CUPRAMMONIUM RAYON: Filaments produced by precipitating cellulose dissolved in a solution of copper oxide in ammonia.

CURING: 1. In finishing fabrics, the process by which resins or plastics are set in or on textile materials, usually by heating. 2. In rubber processing, vulcanization. It is accomplished either by heat treatment or by treatment in cold sulfuryl chloride solution.

CUSHION-BACK CARPET: A carpet with padding made as an integral part of the backing.

CUT: 1. A unit of yarn number. The number of 100-yard lengths per pound avoirdupois of asbestos yarn or glass yarn, or the number of 300-yards lengths per pound avoirdupois of woolen yarn. 2. A length of woven cloth. 3. The number of needles per inch on a circular-knitting machine. A machine with 34 needles per inch is a 34-cut machine, and a fabric produced thereon is called a 34-cut fabric.

CUT PILE: A pile surface obtained by cutting the loops of yarn in a tufted or woven carpet.

CUT SELVAGE: A cut or break occurring only in the selvage. A cut selvage is caused by incorrect loom adjustment during weaving or improper edge construction. The term also refers to loose edges cut during shearing of the fabric.

CUT STAPLE: 1. An inferior cotton fiber that was accidentally cut because it was too damp during ginning. 2. A term sometimes used to denote staple of manufactured fibers.

CUT YARN: A defective yarn, i.e., cut partially or completely through, resulting from malprocessing.

CYCLIC TRIMER: Strictly, a polymer, in cyclic form, that contains three repeating groups. Cyclic trimer is a by-product found in all commercial polyester and results in deposit buildup in package-dyeing equipment.