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Phyllis G. Tortora | Ingrid Johnson

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ferodo (British usage) A strong industrial fabric made of cotton or asbestos, specially treated and compressed for heavy duty use in such products as brake linings, clutches, friction drives, and stair treads. Sometimes the yarn is made with a brass core. Cotton provides the best wearing surface, but asbestos was preferable when friction generated a temperature of 350°F (177°C) or higher. By 1999 use of asbestos was prohibited in the United Kingdom because it is carcinogenic.

∞**ferrandine** An obsolete, lightweight, English plain weave fabric woven with a silk warp and wool, cotton, or hair filling. Uses: dresses, petticoats, lightweight curtains.

ferret 1. A narrow binding tape of cotton, wool, silk, or rayon. 2. Italian: FLOSS SILK.

∞**ferronnerie** A group of Italian velvets that are ornamented with patterns that resembled wrought iron (ferro); fashionable during the 14th and 15th centuries.

feru A strong bast fiber obtained from the *Cochlospermum* plant in western Africa. Used for rope.

festoon dryer (festoon steamer) A finishing machine in which fabric is carried through a heated chamber hanging in loops over a series of horizontal rods.

festoon steamer See FESTOON DRYER.

festoon stitch See BUTTONHOLE STITCH.

fettling (British usage) Textile machine maintenance and, in particular, the cleaning of card clothing.

fettoflan (British usage) Napped, plain, or twill weave cotton fabric resembling flannel.

feutre (French) Felted or furry.

feutrière (French) FELT.

feutron method A procedure that is used for manufacturing a kind of felt from manufactured fibers by interlocking them by mechanical means on a needle loom, followed by a felting process by the use of chemicals; no bonding agent, such as resin, is used. Fabrics so made are used as reinforcement of plastics, base fabrics for special coatings, and for insulation and high temperature moisture seals in the industrial field. The technique is named for Saint Feutron of Caen, Normandy, northern France, who is the patron saint of the felt industry.

FF Acronym for FULL FASHIONED.

fiber 1. The fundamental component that is used in the assembly of textile yarns and fabrics. 2. (Specific) A unit of matter characterized by having a length at least 100 times its diameter or width and, with the exception of noncrystalline glass fiber, which has a definite preferred

orientation of its crystal unit cells with respect to a specific axis. 3. (Textile) Fibers that can be spun into a yarn of made into a fabric by interlacing in a variety of methods, including weaving, knitting, braiding, felting, and twisting. See ANIMAL FIBER AND FILAMENT, MANUFACTURED FIBER, MINERAL FIBER, REGENERATED CELLULOSE FIBER, VEGETABLE FIBER.

In some cases, the word fiber has been limited to spinable staples, but generally it has also included CONTINUOUS FILAMENT, MONOFILAMENT, and TOW. Synonym: (British usage) *fibre*.

fiber beard Random array of straightened and parallelized fibers used to determine length distribution.

fiber bundle strength See PRESSLEY INDEX.

fiber chip Clump of manufactured staple fibers that stays together in processing.

fiber content The type and amount of fiber(s) used in making a textile product. See TEXTILE FIBER PRODUCTS IDENTIFICATION ACT.

fiber crimp See CRIMP 1.

fiber diagram Graph of fiber length versus cumulative frequency.

fiber dyeing See STOCK DYEING.

fiberfill A manufactured fiber material designed as a stuffing for pillows, comforters, duvets, quilted jackets, and bedspreads. Polyester fibers are used most commonly.

fiber fineness 1. The linear density of a fiber expressed in such units as milligrams per centimeter (principally used in Great Britain), TEX or DENIER. 2. The mean fiber diameter (used for wool and animal hair fibers), usually in microns (μ).

fiber geometry The three-dimensional shape of a fiber. See FIBER MORPHOLOGY.

Fiberglas Formerly a registered trademark for GLASS FIBER.

Fiberglas, Beta Formerly a registered trademark for fine diameter GLASS FIBER.

fiberglass See GLASS FIBER.

fiber lace A delicate lace of banana and aloe fibers.

fiber length 1. Straightened length of individual fiber. 2. An average length of fibers in a sample. See COTTON STAPLE LENGTH, STAPLE LENGTH, WOOL.

fiber length array Series of fibers or groups of fibers in order according to fiber length.

- fiber morphology** The form and internal structure of a fiber. See FIBER GEOMETRY.
- fiber number** See FIBER FINENESS.
- fiber optics** Application to image transmission of the ability of transparent dielectric fibers of glass or plastics to conduct light internally along their length in a flexible path.
- fiber orientation** The degree to which fibers in a fiber assembly, yarn, or nonwoven web are lined up in a particular direction. Greatly affects strength of fiber assemblies and yarns. See CROSSLAID WEB, HOOKED FIBER.
- fiber placement** Building up a structure comprising oriented staple fiber webs or filaments. Synonym: *filament placement*. See COMPOSITE.
- fiber plant** 1. Any form of vegetable life that yields a fiber for use in textiles. 2. A manufacturing facility for making manufactured fibers.
- fiber pore** Orifice in a fiber, i.e., one of the interstices or small openings that exists between the molecules of the fiber.
- fiber properties** Those inherent characteristics of textile fibers that are related to their performance when put to use. Properties can be categorized as: (1) physical properties, including, color, shape and contour, crimp, length, weight, fineness; (2) mechanical properties, including strength, flexibility, elongation, ability to recover from stretching, and resilience; (3) chemical properties, including absorbency, electrical conductivity, various effects of heat, reactivity and resistance to chemicals. Additional properties include the response of fibers to environmental conditions, their dimensional stability, and resistance to abrasion.
- fiber reactive dye** See REACTIVE DYE.
- fiber reinforced composite** (FRC) One or more textile components—which may be fibers, yarns, or fabrics—embedded in a resin matrix. These materials often utilize fibers with high strength, flame or chemical resistance, or other special qualities, and are used to make technologically advanced products. See COMPOSITE.
- fiber rug** A low-grade, woven rug that is made with twisted cotton warp and coarse filling yarn composed of twisted strips of paper. Made in solid colors, varicolored, or with stenciled designs. Has been used as a summer floor covering.
- fiber silk** (fibersilk) Formerly used to designate rayon; now considered a misleading definition for RAYON.
- fiberstock** Chopped up waste from CONTINUOUS FILAMENT that is spun into yarn similar to staple cut from tow. See also STAPLE 3.
- fibertronics** Study, research, and application of advances in integrating elements such as electronic cables, microcontrollers, sensors, and actuators into fibers, yarns, or fabrics.
- fiber weight** See FIBER FINENESS.
- Fiberwoven®** A trademarked process that was developed by Chatham Manufacturing Co. and Fiberwoven Corporation. It converts fiber directly into fabric, eliminating both spinning and weaving, invented by Dr. Alexander Smith, a former professor at MIT. This process is conducted by the simultaneous interlocking of many loops of fibers that are shaped and entangled for NEEDLE-PUNCHING with barbed needles. Blankets were the first articles made by this process. Despite the name, fiberwoven textile is not woven.
- fibranne** (French) A generic name for rayon yarn spun from tow. See TOW 1.
- fibre** British spelling of FIBER.
- fibrene** 1. A flat viscose or acetate staple fiber used in wool and manufactured fiber blends for a kemp-like effect. See KEMP. 2. A yarn made of paper fiber.
- fibret** Extremely short, fine, branched, fibrillated fiber that has very high surface area. Acts as a binder in wet-laid nonwoven fabric.
- fibrid** Short, fine, irregular fiber or fibrillar material that can be used as binder in wet-laid nonwoven fabric or paper. See FIBRET.
- fibril** [fyē'-brihl] One of the minute fibrous elements that makes up a fiber. Fibrils become separated when a fiber is crushed or shredded. See FIBRILLATION 1.
- ∞**fibrilia** Fibers and fabrics made of flax, hemp, jute, or ramie. Once used widely to adulterate wool or cotton.
- fibrilize** See COTTONIZED FLAX.
- fibrilla** See FIBRIL.
- fibrillae** Light-colored specks on dyed silk yarn. See LOUSINESS.
- fibrillated film** See SPLIT FILM YARN.
- fibrillated yarn** See SPLIT FILM YARN.
- fibrillation** [rihb-rih-lay'-shuhn] 1. Process caused by abrasion along the crease line or at any abrasion point of garments in dark colors and even lighter colors. The abrasion teases some of the FIBRILS formed in the fabric