

# MAN-MADE FIBER AND TEXTILE DICTIONARY

CELANESE CORPORATION

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## FOREWORD

This Man-Made Fiber and Textile Dictionary is presented to you as a convenient reference for textile terminology, with special emphasis on man-made fibers. It attempts to convey as much basic information as is possible without making the book cumbersome. The first and second editions were published to provide a source for Celanese personnel. The third edition was published in response to numerous requests from our customers and others in the textile industry for an up-to-date glossary of terms encountered in the man-made fiber and textile trades. To enhance its usefulness, the dictionary has been revised, expanded, and illustrated.

Generic terms such as *dyeing* and *knitting* are handled comprehensively with specific terms presented under one heading. The more widely used man-made 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. Our more familiar fiber and fabric trademarks, along with those of Fiber Industries, our subsidiary, are listed in the Appendix. Also given 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 familiarize the reader with the language of textiles. Only through you, the user, can we determine its value, and we therefore invite your comments.

Skechers EX1057-p.3
Skechers v Nike

**KNITTING:** A method of constructing fabric by interlocking series of loops of one or more yarns. The two major classes of knitting are warp knitting and weft knitting, as follows:

**1. Warp Knitting:** A type of knitting in which the yarns generally run lengthwise in the fabric. The yarns are prepared as warps on beams with one or more yarns for each needle. Examples of this type of knitting are tricot, milanese, and raschel knitting.

**Milanese Knitting:** A type of run-resistant warp knitting with a diagonal rib effect using several sets of yarns.

**Raschel Knitting:** A versatile type of warp knitting made in plain and Jacquard patterns; the latter can be made with intricate eyelet and lacy patterns and is often used for underwear fabrics. Raschel fabrics are coarser than other warp-knit fabrics, but a wide range of fabrics can be made. Raschel knitting machines have one or two sets of latch needles and up to thirty sets of guides.

**Tricot Knitting:** A run-resistant type of warp knitting in which either single or double sets of yarn are used. (Also see TRICOT.)

**2. Weft Knitting:** A common type of knitting, in which one continuous thread runs crosswise in the fabric making all of the loops in one course. Weft knitting types are circular and flat knitting.

**Circular Knitting:** The fabric is produced on the knitting machine in the form of a tube, the threads running continuously around the fabric.

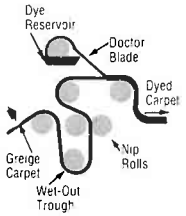
**Flat Knitting:** The fabric is produced on the knitting machine in flat form, the threads alternating back and forth across the fabric. The fabric can be given shape in the knitting process by increasing or decreasing loops. Full-fashioned garments are made on a flat-knitting machine. (Also see FLAT-KNIT FABRIC.)

**KRAFTCORD:** This yarn produced by tightly twisting plant fiber is sometimes used in carpet backings.

**KRAFT PULPS:** Pulps prepared in the alkaline liquor consisting of sodium hydroxide, sodium carbonate, and sodium sulfide. Also called sulfate pulp.

**KRAFT YARN:** A yarn made by twisting a strip of paper manufactured from kraft pulp.

**KÜSTERS DYEING RANGE:** Continuous dye range for carpets. The unit wets the carpet, applies dyes and auxiliary chemicals by means of a doctor blade, fixes the dyes in a festoon steamer, and washes and dries the carpet in one pass through the range. An optional auxiliary unit may be installed to randomly drip selected dyes onto the background shade for special styling effects. This process is called TAK dyeing.




**Küster Carpet Dyeing Range**



# L

**LACE:** Ornamental openwork fabric, made in a variety of designs by intricate manipulation of the fiber by machine or by hand.

**LACE STITCH:** In this knitting stitch structure, loops are transferred from the needles on which they are made to adjacent needles to create a fabric with an open or a raised effect.

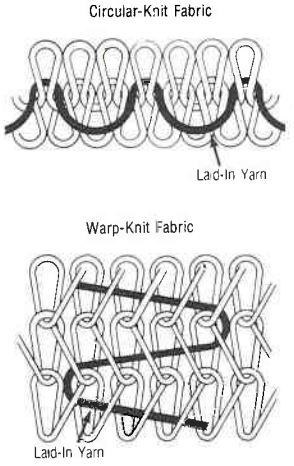
**LAID-IN FABRIC:** A knit fabric in which an effect yarn is tucked in, not knitted in, the fabric structure. The laid-in yarns are held in position by the knitted yarns.

**LAMÉ:** A fabric woven with flat metal threads, usually silver or gold, which form either the background or the pattern.

**LAMINAR FLOW:** Streamline flow in a viscous fluid, such as molten polymer, near a solid boundary.

**LAMINATED FABRIC:** See BONDED FABRIC, 1.

**LAP:** A continuous, considerably compressed sheet of fibers which is rolled under pressure into a cylindrical package, usually weighing between 40 and 50 pounds. The lap is used to supply the card.




**Laid-In Constructions**

**LAPPING:** A term describing the movement of yarn guides between needles, at right angles to the needle bar, or laterally in relation to the needle bar during warp knitting.

**LAP SPLITTING:** A condition caused by a lap which will not unwind in carding in the same thickness as it was wound in picking. This splitting of the sheet of fiber can result in either a thicker or thinner sheet being fed into the card.

**LASE:** An acronym for load at specified elongation: the load required to produce a given elongation of a yarn or cord.

**LASER:** A device for producing an intense beam of coherent light. It is used for cutting, spectroscopy, photography, biomedical investigations, etc.

**LASHED-IN FILLING:** See PULLED-IN FILLING.

**LASTRILE FIBER:** A manufactured fiber in which the fiber-forming substance is a copolymer of acrylonitrile and a diene composed of at least 10% by weight but not more than 50% by weight of acrylonitrile (—$CH_2$—CHCN—) units (FTC definition).



Skechers EX1057-p.4
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