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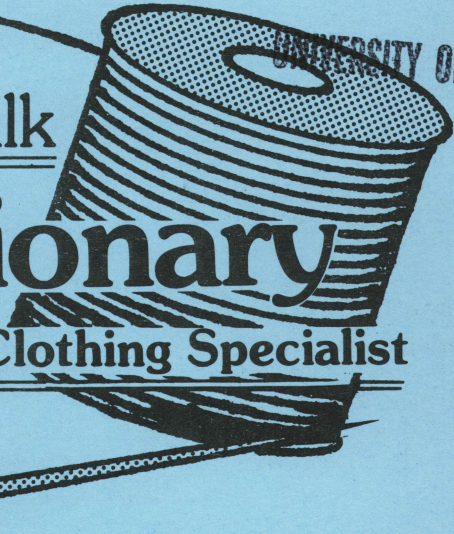
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All About Silk

A Silk Dictionary

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While most fashions come and go, silk — that most luxurious of fabrics — has been demanded by the fashion-conscious for thousands of years. The legend is that more than 4,000 years ago, the 14-year-old bride of Emperor Huang-ti learned the secret of silk. Asked by the emperor to study why little white worms were destroying the Imperial mulberry grove, Hsi-ling-shi gathered the pale glossy cocoons from the leaves. She accidentally dropped one in her tea cup, and in playing with it, found she could pull a single delicate filament from it.

Hsi-ling-shi recognized the importance of her discovery. She is also credited with inventing both the silk reel, which combines the delicate fibers into strong threads, and with the silk loom for weaving the threads into fabric.

As long ago as the second century B.C., Chinese rulers gave silk as peace offerings to the leaders of neighboring regions. Emperors of ancient Rome wanted silk so badly they traded their precious gold for the mysterious fabric from the East. The fiber from which pure silk is made is the cocoon building material of the little, mulberry leaf munching silkworm.

The filament is a long, continuous thread in which the silkworm wraps itself before changing to a moth. Before the moth emerges, however, it is killed and the filament unwound. Filaments

from several cocoons are then twisted and wound together to make silk thread.

The output of the little silkworm is stupendous. Each cocoon yields a usable, continuous filament 2,000 to 3,000 feet in length.



Amount of Silk Needed To Make a Dress

If you need 4 yards of 45-inch silk fabric for a dress, you will need about 47 days and a 516.7 square-foot grove of mulberry trees to feed silk worms hatched from 2,200 eggs. They then can spin the 1,800 cocoons necessary to produce 21 ounces of silk fiber that will be woven into the 4 yards of dress fabric!

For the home sewer, silk affords not only beauty and softness to a finished garment but also the pleasure of working with fabric of the highest quality. Be careful, though. Sewing on silk requires special techniques and great attention to detail. Just as the diamond cutter must never err when working with that most precious of stones, neither must the seamstress err when working with silk.

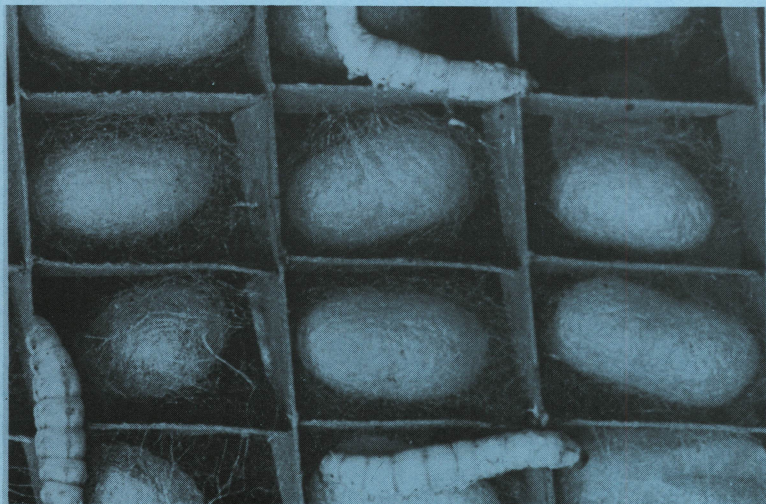


Fig. 1. Silkworms and cocoons.

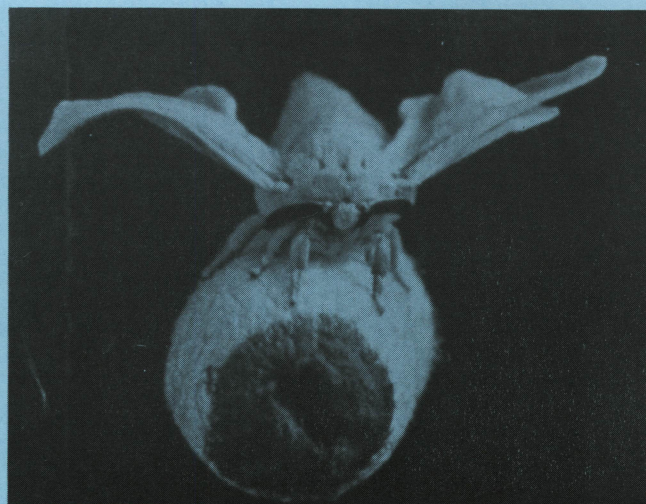


Fig. 2. Moth that emerges from cocoon.

Silk Terminology

Broadcloth — Light to mediumweight plain cloth with a soft hand and subtle luster in solids and prints. For blouses, dresses, linings, accessories. Light solids are hand washable.

Brocade — Large family of silks with design woven into the fabric. Light to heavy, solid or multicolored. For apparel, accessories, neckware and decorations. Dryclean.

Charmeuse — Fine, very soft, satin-faced silk crepe with lustrous finish and beautiful drape. For evening clothes, blouses and lingerie. Dryclean.

Chiffon — Very light, almost transparent silk in plain weave. In solids or prints. For cocktail and evening wear, bridal apparel, blouses and accessories. Dryclean.

China Silk — A very soft, extremely lightweight silk made in plain weave. Commonly used for linings.

Crepe De Chine — Fine, light silk crepe with smooth, lustrous finish and soft drape. Solids or prints. For dresses, evening wear, blouses, scarves and fine linings. Light solids are hand washable.

Degumming — Degumming is actually done as a fabric finish. It is a scouring operation that removes the natural gum, sericin, from silk in a hot soap solution. Degumming generally occurs after the yarn has been woven or knitted.

Dupioni — Silk that comes from the fiber formed by two silk worms spinning their cocoons together.

Faille — Fine, ribbed silk from tissue to mediumweights. Can be either soft or crisp in hand. Solids or prints. For dresses, evening wear, linings and accessories. Dryclean.

Foulard — Light, soft silk twill with pronounced diagonal rib. Usually printed. For dresses, robes, neckwear and accessories. Dryclean.

Gauze — Very sheer to heavy silks, usually in open weave that is made by twining the lengthwise threads (warp) around the crosswise threads (weft) in a continuous figure 8 pattern that prevents very open weaves from shifting or snagging. Dryclean.

Georgette — Light, semisheer crepe with grainy surface, drapes well and resists wrinkles. In solids or prints. For blouses, dresses, evening wear. Dryclean.

Grogam — Coarse, loosely-woven fabric of silk alone, silk and mohair or silk and wool. Decorative. Dryclean.

Gros de Londres — Lightweight silk dress fabric of alternating wide and narrow crosswise ribs, often of two different colors and often of glossy finish. Dryclean.

Grosgrain — Closely woven corded fabric. Usually of silk and rayon and often with cotton filler. Decorative. Dryclean.

Habutai — A plain weave, heavily sized fabric either piece dyed or printed. Slubs in the fabric are characteristics, not defects. It is heavier than china silk.

Honan — Light to medium silk with crisp hand and low luster, woven of tussah (wild) silk. Often brilliant and/or iridescent colors. For dresses, blouses and evening wear. Light-colored solids are hand washable. It is noted for its uniformity in color. Takes dye very evenly.

India Silk — Hand loomed, thin, soft plain weave fabric made in India.

Iridescent Silk — A color effect achieved by using different hues and tints in the lengthwise or crosswise direction of the fabric. Light falling on the surface creates an iridescent effect.

Lame — Any silk interwoven with metallic threads. For formal and evening wear. Dryclean.

Linen Silk — Tissue to suiting weights, with surface resembling true flax linen. Light color, lightweight solids are hand washable.

Marquissette — Extremely light and sheer crisp silk in gauze weave, usually plain. For dressy clothes, evening wear, bridal apparel, blouses and decorative uses. Dryclean.

Matelasse — Patterned silks of various weights with quilted or bubbled surface created by weaving. For dressy clothes, evening wear accessories and decorative use. Dryclean.

Moire — Any weight silk having a "watered" or wavy effect embossed on the surface. Most common on faille, taffeta and grosgrain. Dryclean.

Mousseline de Soie — A French term for "silk muslin." A plain weave, crisp and sheer fabric. More closely woven and stiffer than chiffon.

A Guide to Batting

Natural Fibers

Fiber content	Availability	Uses	Advantages	Disadvantages	Special sewing tips
<p>Cotton 100% cotton. Most cotton battings have a glaze finish on the surface to hold the fibers together.</p>	81" x 96" and 81" x 108" pre-packaged sheets.	For hand and machine quilting. Good for quilts, pillows and modular (quilt-as-you-go) items. Not recommended for comforters because close quilting is necessary, and the loft is too low. Also not for trapunto work since the batting tends to mat down.	Soft, drapable. It has a thin loft that is excellent for extra-fine quilting stitches. Absorbent and comfortable at any temperature. Also gives quilting stitches a flat, smooth look.	Requires skill in handling; not recommended for beginners. Quilting lines must be close together because shifting and lumpiness can be a problem. Washing may cause batting to mat and bunch.	Quilting lines should be close, no more than approximately 2" apart, to hold the batting together.
<p>80% cotton/10% polyester. A cotton blend that is bonded* (see below) with properties similar to all-cotton batting.</p>	81" x 96" prepackaged sheets.	For hand and machine quilting. Good for quilts, quilted clothing and craft projects such as placemats and kitchen accessories. Not recommended for comforters because the loft is too low.	All the comforts of an all-cotton batting with the same ease in handling as polyester batting. Resists fiber migration and shifts even less than polyester batting. Also gives an "heirloom" look to quilts.	A very thin, low-loft batting.	Space quilting lines no more than approximately 4" apart.
<p>Wool 100% wool. This type of batting is sometimes finished with a cheesecloth or lightweight fabric cover.</p>	Available in standard quilt sizes in prepackaged sheets. Also sold by the yard, usually 90" wide.	For hand or machine quilting. Good for quilts, hand-tied comforters, pillows, insulated clothing and curtains. Also good for trapunto work.	Soft, drapable and fluffy. An excellent insulator that is lightweight. Absorbent and comfortable at any temperature. Gives good textural dimension to quilting stitches.	Requires skill in handling, and close quilting may be necessary.	Space quilting lines no more than approximately 4" apart; too close stitching, however, will reduce the loft and warmth considerably. When making hand-tied comforters, do ties about 6" apart to allow the wool to breathe.
<p>Down 100% goose or duck down. This is actually a "filling;" it is sold loose rather than in sheets like regular batting.</p>	Sold by the ounce weight, usually 3/16 oz to 1-1/2 oz packs.	For machine quilting. Good for quilts, hand-tied comforters, sleeping bags and insulated outdoor clothing.	Lightweight with superior warmth. Absorbent and comfortable at any temperature.	Expensive. Requires skill in handling. Loses its shape and gets very heavy when wet. Should be used for quilts that are made in sections. Fiber migration can be a problem.	To aid against fiber migration, a down-proof fabric must be used such as pillow ticking, densely-woven taffeta, down-proof ripstop nylon; test fabric first. The sizing on some fabrics will keep the down from coming through the fabric. For best results, the quilt should be broken down into sections and each part filled with down separately. Channel quilting is recommended; fill each channel after stitching; then stitch across all channels if more quilting lines are desired.

A Guide to Batting (cont'd)

Natural Fibers (cont'd)

Fiber content	Availability	Uses	Advantages	Disadvantages	Special sewing tips
Silk 100% silk. This is actually a "filling;" it is sold loose rather than in sheets like regular batting.	Available as "leaves." Each leaf is shaped like a pocket that can be opened out into a single layer. Sold by the leaf or the pound (about 30 to 35 leaves). Approximately 6 leaves are required for a long-sleeved quilted jacket.	For hand or machine quilting. Good for quilts, quilted clothing and pillows. Can also be used for spinning.	Featherweight, even lighter than down. Very soft with superior warmth. Will keep its shape when wet.	Expensive. Requires skill in handling. The batting tends to stick to your hands when working with it.	A silk underlining should be used to inhibit fiber migration. The batting needs to be pulled evenly to avoid lumps. Handle with care.

Synthetic Fibers

Unbonded 100% polyester. This type of batting does not have a finish on it making it very unstable.	Usually sold loose for stuffing. Sometimes available in standard quilt sizes in prepackaged sheets.	For pillows, craft projects such as picture frames and also trapunto work. Not recommended for quilts or comforters because it is too unstable.	Very inexpensive. Good for craft projects. Non-allergenic.	Loose construction makes it difficult with which to work. High and low areas can develop since there is no finish to hold the fibers together. Fiber migration can be a problem.	Cover with cheesecloth or lightweight fabric to inhibit fiber migration.
Bonded and glazed 100% polyester. Bonded batting has a coating applied to both sides that penetrates all fibers to add strength and hold fibers together. Glazed batting is coated lightly with resin; the resin does not penetrate.	Available in standard quilt sizes in prepackaged sheets. Also sold by the yard, usually 45" wide.	For hand and machine quilting. Good for quilts, hand-tied comforters, pillows and craft projects such as padded boxes.	These battings are easy to handle; good for beginners. They are strong, stable with good loft. Resist fiber migration. Keep their shape and loft well after washing. Nonallergenic. Most of these battings are good for quilters who like to experiment because they do not have to be quilted too closely.	Nonabsorbent and hot. Difficult to get small, fine stitches when hand quilting. The coating on some battings may wash off after some years.	Space quilting rows approximately 2" to 4" apart. Quilting rows can be further apart if the quilt is used for decoration only, and it will not receive a lot of wear and tear. Hand-tie comforters approximately 4" apart or less.
Needlepunched 100% polyester. The fibers are put through a machine with needles; the needles penetrate the fibers, locking them, to form batting.	Available in standard quilt sizes in prepackaged sheets. Also sold by the yard, usually 45" wide. A dense-loft type is available, too.	For hand or machine quilting. Good for quilts, quilted clothing and craft projects. This batting by the yard can be used for upholstery, wall padding and drapery lining. The dense-loft type is not recommended for hand quilting, but it is good for outerwear garments, sleeping bags and energy-conserving projects.	Easy to handle. The batting is stable and consistent in form. Nonallergenic. The low-loft type is good for hand quilting because it accentuates fine details and tiny stitches. The dense-loft type is very warm.	Nonabsorbent and hot. Fiber migration can be a problem.	Space quilting rows approximately 2" to 4" apart. Hand-tie comforters approximately 4" apart or less.

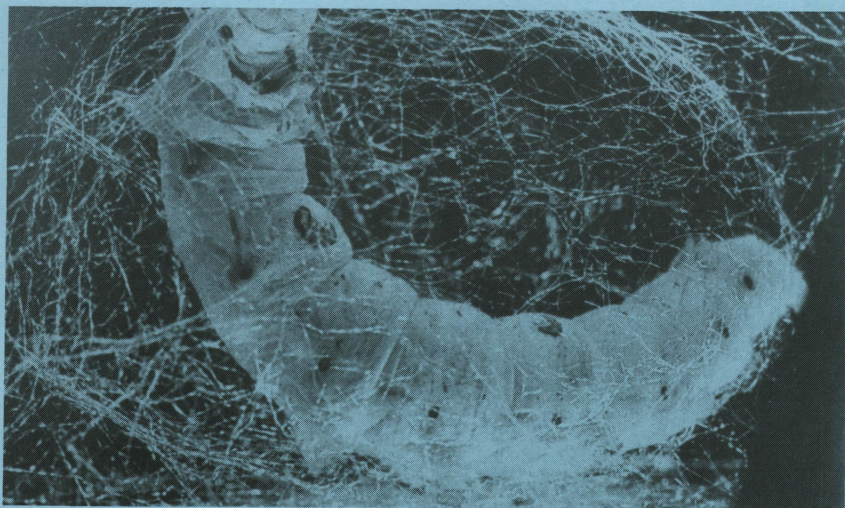


Fig. 3. Filament thread in which the silkworm wraps itself.

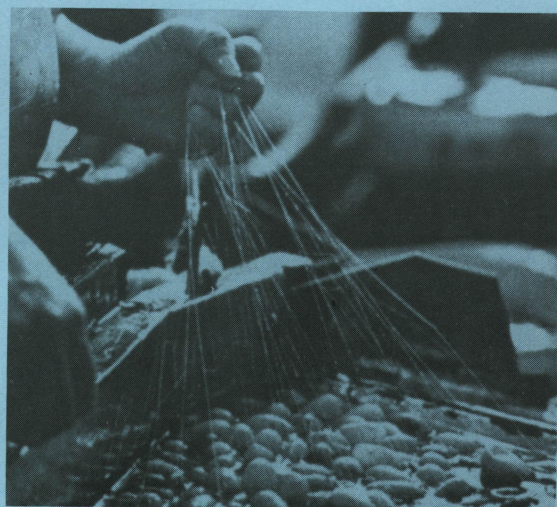


Fig. 4. Delicate filaments from the cocoons.

Noil — Any silk using “noil” yarn from the inner part of the cocoon. Yarn is shredded, combed and spun much like cotton thread. Noil fabrics are very soft, slightly nubby and have a cotton-like appearance. They’re not as expensive and have a sportier, more casual look than most silks. For day dresses and sportswear. Lightweight and light colors are hand washable.

Peau de Soie — French term meaning “silk skin.” A satin weave, yet the fabric is the same on both sides. It has a smooth, silky, semidull appearance and is rather heavy. Made of silk, polyester or other manmade fibers.

Pongee — Soft, lightweight tussah silk with a plain, lightly textured surface. Solids or prints, often in the natural creme or tan. For all apparel, accessories and decorative uses. Light color solids are hand washable.

Raw Silk — Often confused with Tussah (wild) silk, raw silk is any silk fabric or yarn before removal of the natural gum by boiling the cocoon. In other words, unfinished (or, as the industry calls it, “gray”) goods. Few uses since people can be allergic to it at this stage.

Satin — Wide range of silks with special weave that creates a lustrous or shiny surface. In all weights and hands. Usually as solids. Broad fashion usage. Dryclean.

Sericin — Otherwise referred to as the silk glue, actually holds the fibers together. Sericin is left on the fiber as sizing until after weaving. It can be

completely dissolved by strong acids and strong alkalis. To make a silk fabric soft and glossy, the user must remove the sericin by the degumming process.

Shantung — Silk fabrics with distinctive slubs (knotted yarns) running across the fabric. From Dupioni (double cocoon) yards. Broad fashion and decorative uses. Light colors and hand washable.

Silk — The modified term “silk” means silk from a cultivated cocoon of silk worms fed mulberry leaves.

Silk Blends — Fabrics made by blending silk with natural or manmade fibers. Advantages of a silk blend are easy care and moderate prices. Silk fibers may enhance color and/or surface interest.

Silk Noil — Short fibers from the inner most part of the cocoon that are shredded, combed and spun. They are frequently and internationally used to create thick and thin slubbed yarns which when woven are nubby and cotton-like in appearance. They tend to give a sportier look.

Silk Organza — A lightweight silk fabric given a crisp finish by either natural gums or applied resin finishes. When printed, it resembles mousseline de soie.

Surah — Soft, lightweight silk twill (diagonal ribs), usually printed. For dresses, blouses, neckwear and accessories. Light colors are hand washable.

Surah — Soft, lightweight silk twill (diagonal ribs), usually printed. For dresses, blouses, neckwear and accessories. Light colors are hand washable.

Taffeta — Plain weave silks of very crisp hand and soft luster, in light to heavyweights and often iridescent. For evening wear, accessories and decorative uses. Dryclean.

Tussah — Yarn produced from wild silkworms and usually coarser, crisper and natural colored, as opposed to “cultivated” silk. Tussah is often incorrectly called “raw silk.” Tussah yarns are used in shantungs, pongees, honan, linen silks and rough textured suitings. Tussah refers to the yarn and is not a specific fabric.

Twill — A type of weave with a subtle to very distinct diagonal effect. Twill is found in many fabrics, including cotton, for example, where it is in khaki and in wool where it is in gabardine, serge and cavalry. In silks, it is used most often in the surah and foulard fabrics.

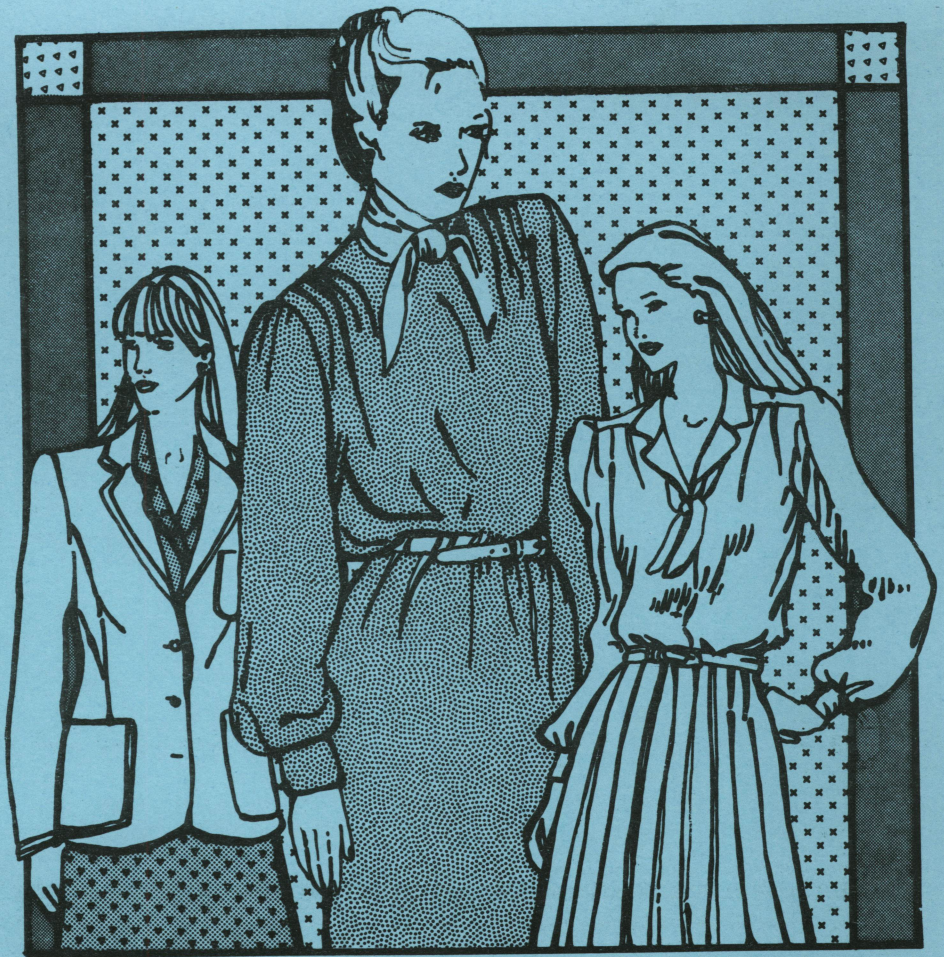
Velvet — A large family of textiles with soft, thick woven pile made of hundreds of tiny tufts. Velvets include chiffon-weight, Lyons (lightweight, lustrous), uncut (looped pile), brocaded and panne (pile completely flattened in one direction). Shiny, almost metallic appearance. Dryclean.

Voile — A lightweight, sheer, soft plain weave fabric made of lightly twisted yarns.

Weighted Silk — Because of the high cost of silk, it is a common process to weight the silk with less expensive materials to get a greater profit. The quantity of silk goes much further. The Federal Trade Commission regulated the weighting process to prohibit an inferior fiber from being called silk. Pure silk cannot be weighted by more than 10 percent, except black silk that can be weighted 15 percent. It is becoming more rare to find weighted silk. The United States no longer manufactures it, and very little is imported.

Wild Silk — Wild silkworms fed on oak or cherry leaves rather than mulberry leaves. These leaves may contain tannin, a substance found in many plants that causes the fiber to take on a brownish color. The fiber has a large diameter, is more irregular, stiffer and coarser. The fiber is less reactive to chemical agents. It is more difficult to bleach, degum or dye. An example of a wild silk is silk pongee or tussah.

Those who like to be well-dressed on a budget are discovering that a few classic silk outfits are a wise investment. Silk fashions could be better choices than this season's hottest item that may be dated in 6 months.



Silk Batting

One hundred percent silk batting is excellent insulation. It is warmer than down with less weight. It is a perfect

choice for fine quilting especially when using silk fabric. One pound consists of about 35 leaves. Each leaf is approximately 18 × 12 inches (double thick-

ness) or 18 × 24 inches (single thickness). The chart on the inside pages shows how silk batting compares to other batting on the market.

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