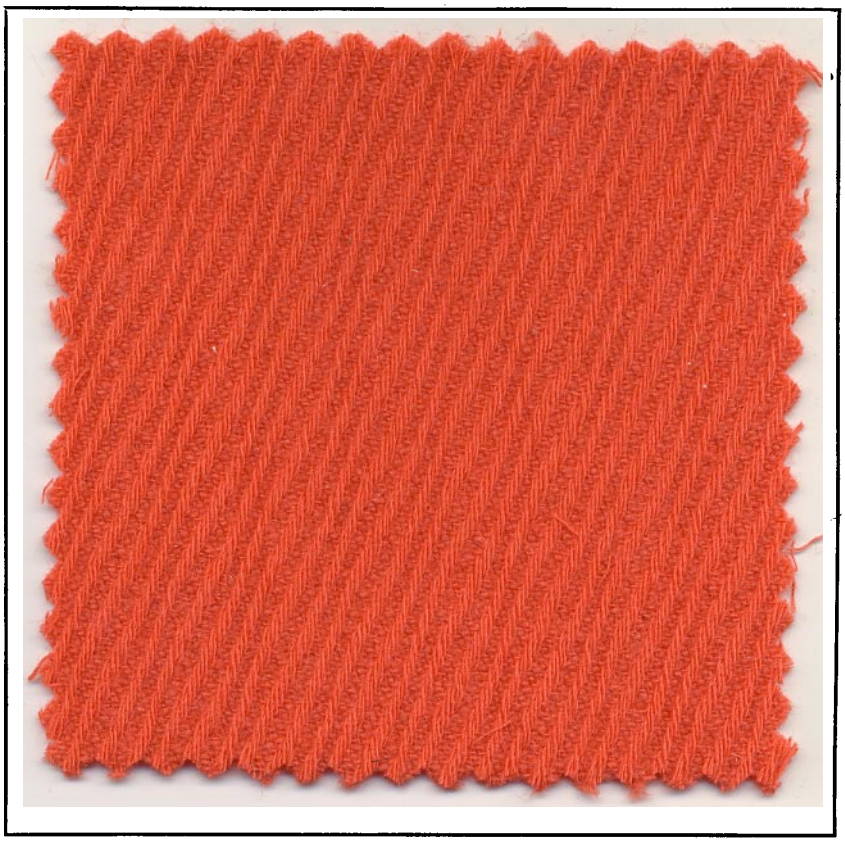


100% Wool

CAVALRY TWILL

Definition: Cavalry twill is usually made of wool or cotton. It may be made of synthetic fibers. It is a very firmly woven, hard-surfaced fabric. It may be recognized by its very pronounced double twill. The diagonal lines go from left to right. They are spaced widely and can be seen on the back of the fabric.

Advantages:

- This fabric construction offers a very durable and serviceable fabric for sportswear, coats, raincoats, and suits.
- Cavalry twill drycleans satisfactorily.

COVERT

Definition: Covert is usually made of wool or cotton. It may be made of the synthetic fibers. It is a medium to heavy-weight twill weave fabric. Its distinguishing characteristic is its mottled or flecked appearance. This is achieved by using a white or colored twisted or spun warp yarn and a solid colored filling yarn.

Advantages:

- Covert offers a wide selection for specific uses. Wool and wool versions are used for raincoats, coats, and suits. Cotton covert is very adaptable to dress, sportswear, shirts, uniforms, and household items such as draperies and bedspreads.
- Covert wears well, sheds dust and soil readily.
- Covert resists wrinkling, making it desirable for rainwear and sports clothes.
- Covert takes a water-repellent treatment well; hence, finds wide use in rainwear.
- Covert drycleans and wetcleans satisfactorily.

100% Wool

55% Acrilan, 38% rayon, 7% acetate—Chemstrand Company, Burlington Mills

FLANNEL

Definition: Flannel is a term used to describe a large group of napped plain or twill weave fabrics made of cotton, wool, or synthetic fibers. The fabrics vary in closeness or firmness of weave, and degree of napping. For example, a French flannel is a very fine twill weave fabric, slightly napped on the right side only, whereas a suede flannel is napped on both sides, sheared, and the fibers pressed into the fabric, giving the appearance of a close felted fabric. Viyella flannel is a trade name for a slightly napped twill-weave flannel made of part wool and part cotton. It is treated so that it is guaranteed not to shrink.

Advantages:

- Its soft appearance makes flannel desirable for many uses.
- Flannel is comfortable to wear.
- With reasonable care, flannel is a very serviceable fabric.
- Flannel drycleans satisfactorily.

Disadvantages:

- The disadvantages of flannel would result only from wrong application of garment design.
- With hard wear, the nap is rubbed off by abrasion, leaving worn looking areas.

GABARDINE

Definition: Gabardine is a hard-finished, clear-surfaced twill weave fabric made of either the natural or synthetic fibers. The diagonal lines are fine, close, and steep from left to right. They are more pronounced than serge (see page 265). The lines cannot be seen on the wrong side of the fabric.

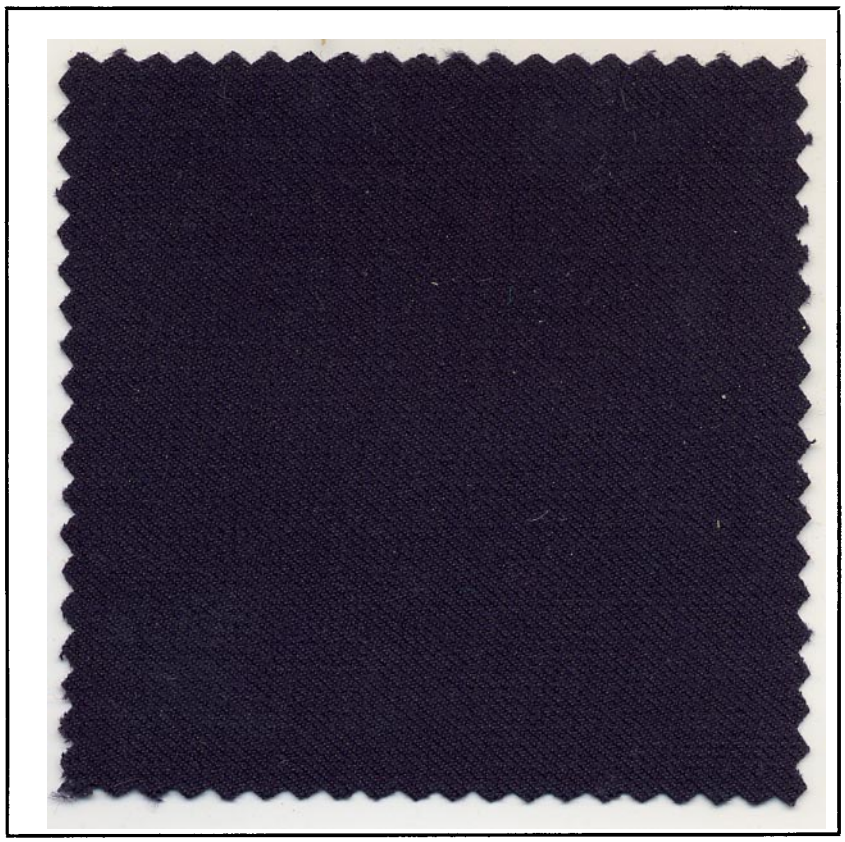
Advantages:

- There is a wide range of finishes in gabardines, ranging from dull to lustrous.
- It is adaptable to many uses because it tailors well.
- It is a fabric that is smart for both dress and casual wear.
- Gabardine gives good service with care in wear and in drycleaning.

Disadvantages:

- Gabardines develop shine with hard wear.
- They require special handling in finishing or pressing to avoid shine and seam impressions.
- Some gabardines do not resist lint and dust very well.
- Some dyes used to dye these fabrics are very sensitive to acidic and alkaline cleaning and spotting agents, as well as to many substances that may be spilled on the fabric during wear.

55% Dacron, 45% Wool



100% Wool—Stillwater Worsted Mills, Inc.

SERGE

Definition: Serge is a twill weave fabric with a pronounced diagonal rib on both the right and wrong sides. The lines run from lower left to upper right on the face of the cloth; from left to right on the underside of the fabric. There are many different weights of serge fabrics. For example, a "Storm Serge" is a coarse, wiry fabric, whereas a "French Serge" is made of a very fine, soft yarn producing a fine twill.

Advantages:

- Serge is adaptable to a variety of applications in dresses, suits, and coats.
- It resists wrinkling; sheds dust.
- Serge tailors well.
- It cleans satisfactorily.

Disadvantages:

- Serge develops shine with hard wear.
- Serge fabrics require special handling in finishing or pressing to avoid shine and seam impressions.

SHARKSKIN

Definition: There are two distinct types of sharkskin, namely:

(1) ***Sharkskin made of acetate, rayon, Arnel, or other synthetic fibers:*** These may be described as sleek, hard-finished, crisp, yet pebbly surfaced fabrics with a chalky luster. Filament yarns are twisted and woven tightly in either a plain or basket weave construction, depending on the effect desired.

(2) ***Wool sharkskin:*** This fabric is characterized by its twill weave. The yarns in both the warp and filling are alternated, white with a color such as black, brown, or blue. The diagonal lines of the twill weave run from left to right; the colored yarns or lines from right to left.

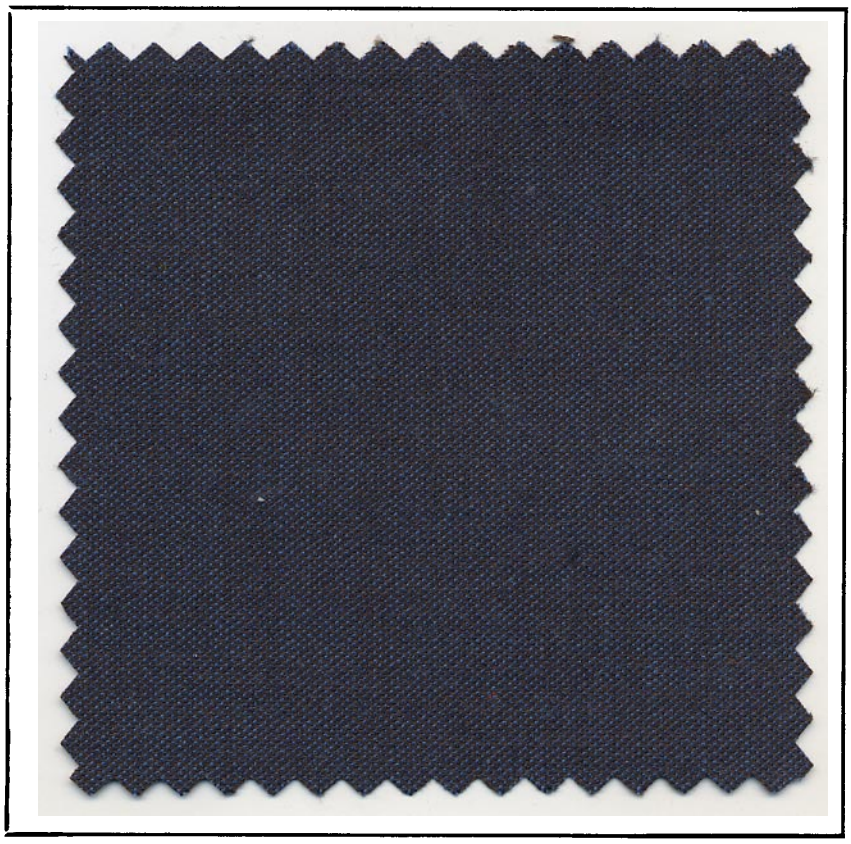
Advantages:

- Both types of sharkskins may be classed as serviceable.
- Both types dryclean satisfactorily.

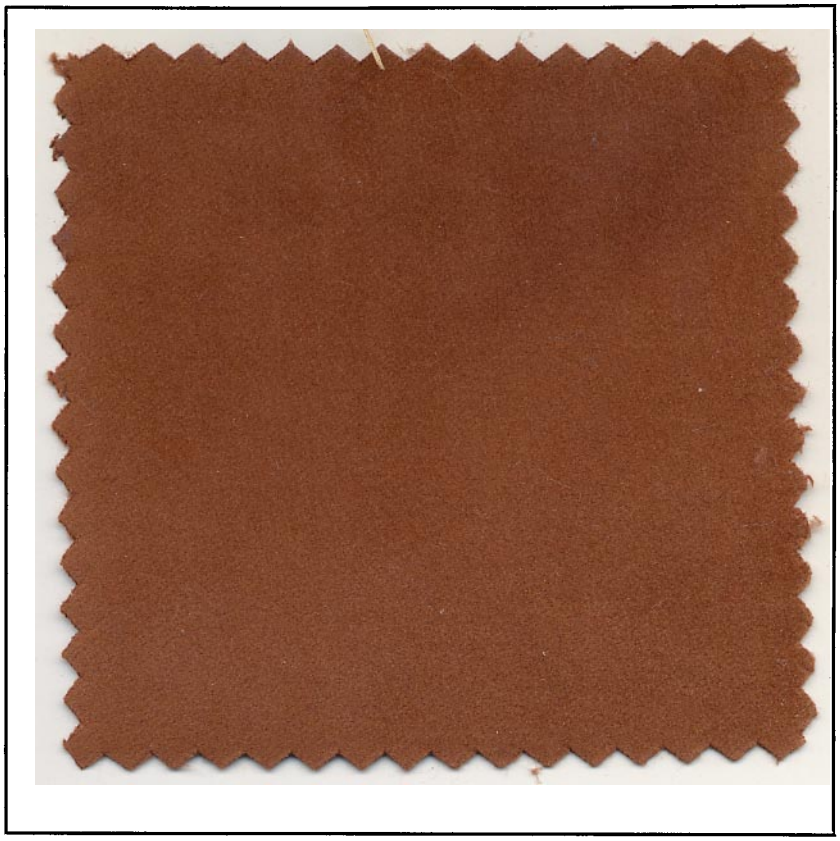
Disadvantages:

- The sharkskins made of synthetic fibers are sometimes very difficult to iron or press. The wrinkles sometimes become hard set and are difficult to remove.

100% Wool



- Some of the dyes used on the synthetic-type sharkskins are very sensitive to wear agencies and the spotting reagents required to remove spots and stains.
- Some people feel that some of the synthetic-type sharkskins are warm to wear in warm climates. This depends on individual human temperament.



Heeksuede cloth, 100% cotton—Heeksuede, Inc.

COTTON SUEDE

Definition: A closely woven cotton sheeting is napped on one side to resemble genuine suede.

Advantages:

- Cotton suede fabrics have a luxurious appearance.
- Light-weight fabrics are used for dresses and suits; heavy-weight fabrics for coats and jackets.
- The suede fabrics are available in any color and most colors possess good colorfastness properties.
- Cotton suede fabrics can be treated with crease-resistant finishes and water-repellent finishes.
- Cotton suede fabrics dryclean satisfactorily.

Disadvantages:

- Some of the imported cotton suede fabrics dyed with pastel shades have changed color in drycleaning. The dye is solvent-soluble.
- Some dyes rub off with wear along double thicknesses of fabric such as welt or flat-fell seams, the edges of pockets, collars, cuffs.

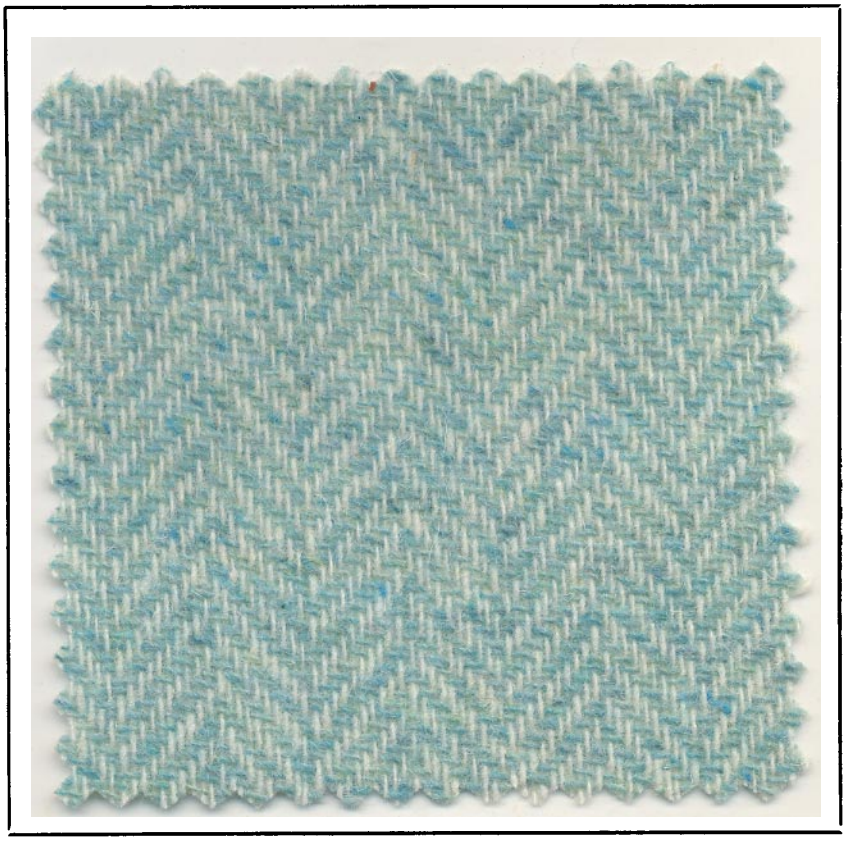
TWEED

Definition: The term "Tweed" is derived from the river Tweed in Scotland, where these fabrics were first woven. The term is now used to describe a wide range of light to heavy-weight, rough-textured, sturdy fabrics. They are characterized by their mixed colored effect. Tweeds may be made of a plain, twill, or herringbone weave of practically any fiber or mixture of fibers. They may be mono-colored (different shades of the same color), checked, plaid, striped, patterned. There are certain names famous among tweeds. They are:

HARRIS TWEED: This fabric is made by hand in the outer Hebrides off the coast of Scotland. The dyes in the yarns are cooked over peat. The smell of peat often remains in the fabric and may become noticeable when the fabric becomes damp.

DONEGAL TWEED: This is a thick fabric made of colorful slubs like the original homespun tweeds. They are hand woven in Donegal County, Ireland.

100% Wool, Herringbone Tweed



Advantages:

- Tweeds are adaptable to many uses in coats, sports clothes, dresses.
- Tweed is very practical and serviceable. It wears well and does not show soil readily.
- Tweed fabrics dryclean satisfactorily.

Disadvantages:

- Loosely woven tweeds lose their shape and become baggy.
- Some tweeds are difficult to tailor.

ALPACA

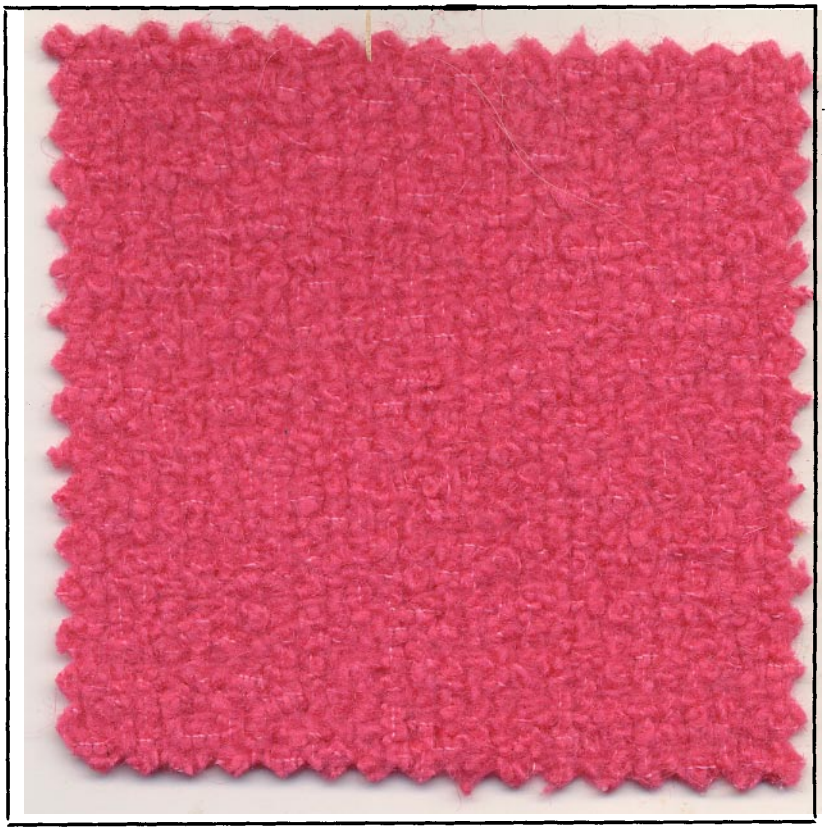
Definition: Alpaca is a specialty hair fiber classed in the camel family (see page 19). It is used to make soft, lustrous, pile weave coating fabrics. The alpaca fiber may be blended with wool or synthetic fibers. Usually it has a cotton knitted or woven back.

Advantages:

- Beautiful fabrics are made of alpaca that are soft to the touch or feel; warm and comfortable to wear.
- Alpaca fabrics dryclean satisfactorily but they require special care.

Disadvantages:

- With hard use, alpaca pile fabrics show signs of wear from abrasion or rubbing.



100% Wool

BOUCLÉ

Definition: Bouclé is a term used to describe a variety of knitted and woven fabric constructions, from light-weight dress fabrics to heavy coating fabrics. Regardless of weight or construction, they may be distinguished by small spaced loops on the surface of the fabric. These fabrics may be made from either natural or synthetic fibers or mixtures of both.

Advantages:

- This construction offers a wide selection of texture and color.
- Most bouclé constructions are very serviceable.
- The majority of bouclé fabrics dryclean satisfactorily.

Disadvantages:

- Depending on the size of the loop, some bouclé fabrics snag and pull readily.
- Some bouclé fabrics have been known to shrink excessively.
- Some knit bouclé fabrics have a tendency to stretch in wear and cleaning.

BOULIVIA

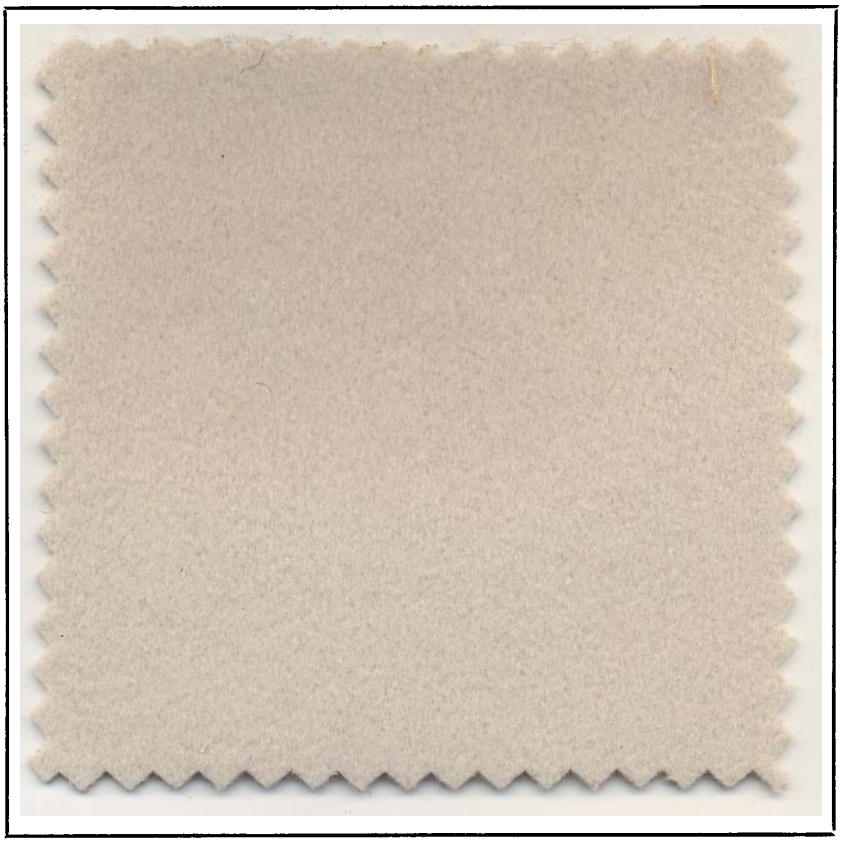
Definition: Boulivia is a fabric with a silky, thick, long pile which is woven and then cut to give a pebbled, cord, or ridge effect. In some fabrics the ridges go up and down, in others the ridges may go diagonally across the fabric. It is usually made of wool. It may contain alpaca or mohair.

Advantages:

- This construction gives a beautiful, rich-looking, dressy fabric.
- Boulivia is light in weight, yet warm.
- With reasonable care, boulivia is a serviceable fabric.
- Boulivia drycleans satisfactorily but it requires special care.

Disadvantages:

- Boulivia lints and soils readily.
- There are many variations in quality of fabric. The low quality fabrics crush readily. They are susceptible to abrasion in wear.



100% Cashmere

CASHMERE

Definition: Cashmere is a term used to describe many fabrics, knit and woven, that contain cashmere blended with wool and other fibers. (See page 19.)

Advantages:

- Cashmere fabrics are beautiful and luxurious in appearance; soft to the touch and feel.
- Cashmere provides warmth without weight.
- Cashmere drycleans satisfactorily but it requires special care.

Disadvantages:

- Cashmere is relatively expensive.
- Cashmere fabrics are very susceptible to abrasion. Some fabrics show signs of wear in the first season of wearing.
- Some cashmere fabrics, particularly knit goods, are susceptible to pilling.
- It is very difficult to remove stains from light colored cashmere fabrics. In fact, some cashmere fabrics have a tendency to water-spot.

CAMEL'S HAIR

Definition: Genuine camel's hair fabrics are very expensive and not too common. The term "Camel's Hair" is used to describe a class of fabrics that includes soft, silky, heavy woolen fabrics, usually tan or brown in color with little or no camel's hair mixed with it.

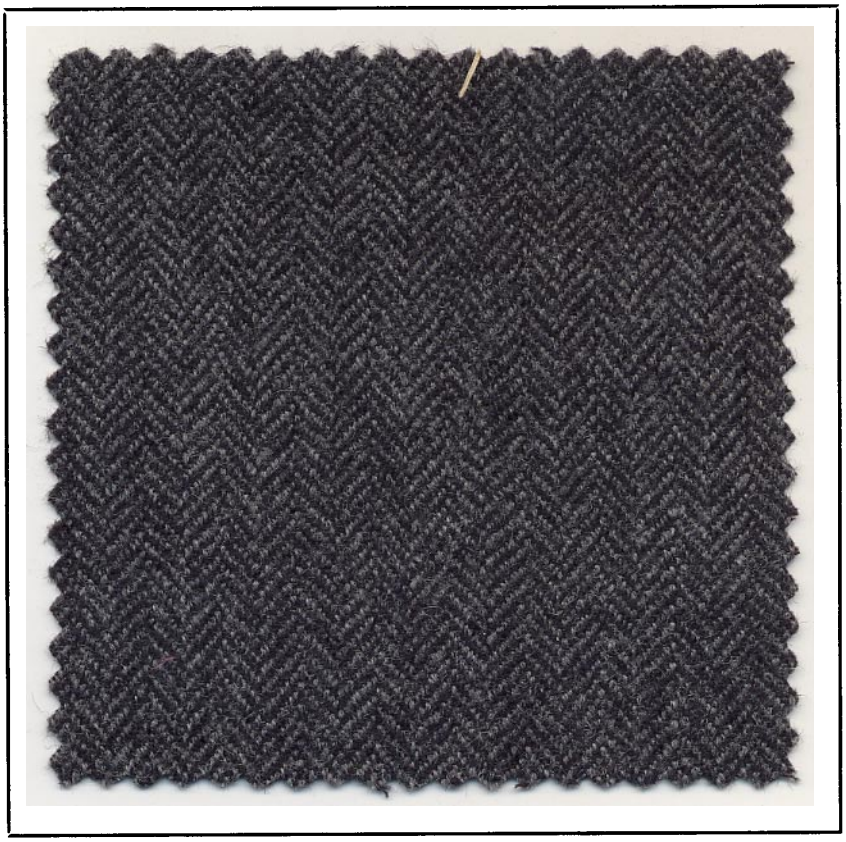
Advantages:

- These fabrics are beautiful in appearance. They are soft to the touch and feel.
- They are warm and comfortable to wear.
- With reasonable care in wear, they give good serviceability although genuine camel's hair requires special handling in drycleaning.
- The woolen type camel's hair fabrics clean satisfactorily.

Disadvantages:

- Genuine camel's hair is very expensive.
- Light colored camel's hair fabrics show soil readily.
- Some of these fabrics are susceptible to abrasion. They may show signs of wear in one season.

*100% Camel's **Hair***



Worsted Cheviot—100% Wool

CHEVIOT

Definition: Cheviot was originally a fabric made of the coarse wool of sheep raised in the Cheviot hills of North England. Today it is a term used to describe medium to heavy-weight fabrics made of wool, wool and cotton or spun synthetic yarns, or entirely of cotton. The weave may be plain, twill, or herringbone. Its distinguishing characteristic is the surface texture. The fabric is "fulled" to make a compact fabric, then napped to produce a ruff, shaggy surface texture.

Advantages:

- Cheviot fabrics offer a wide selection for coats, suits, sportswear.
- This is a very serviceable class of fabrics.
- Cheviot fabrics dryclean satisfactorily.

Disadvantages:

- The disadvantages of cheviot would result only from the wrong use of the fabric in garment design.

CHINCHILLA

Definition: Chinchilla is a term used to describe a variety of wool and cotton fabrics made of a twill, double cloth, or knitted construction. The fabrics are characterized by the thick, full, soft, dull, irregular surface texture resulting from the curled tuffs or nubs. The long, floating yarns are teaseled by a chinchilla machine to raise a long nap to the surface of the fabric. The nap is then rubbed into small, rounded, curled tufts.

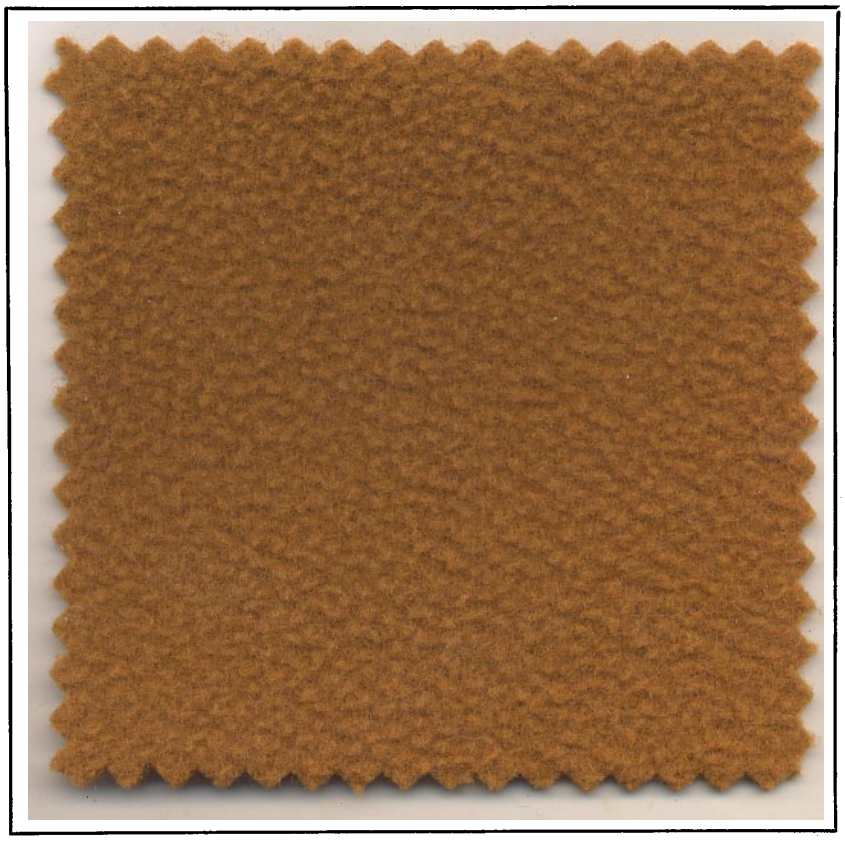
Advantages:

- Chinchilla fabrics are very durable and serviceable.
- These fabrics dryclean satisfactorily.

Disadvantages:

- The better grades of chinchilla are expensive.
- The napped and curled surfaces catch lint and dust easily.
- Some chinchilla fabrics are very heavy in weight, therefore burdensome to wear.

100% Wool



100% Wool

DUVETYN

Definition: Duvetyn comes from a French term "duvet" meaning "down." It is a soft, silky, velvet-like fabric. It may be made of wool, silk, cotton, the synthetic fibers, or a mixture of two of these fibers. The fibers are raised to the surface of the fabric by emery rollers, then sheared, singed and brushed to create a smooth, lustrous surface.

Advantages:

- These fabrics are rich looking, soft, pliable.
- They give warmth without weight.
- Duvetyn drycleans satisfactorily, but it requires special care.

Disadvantages:

- Duvetyn is relatively expensive.
- It catches dust and lint easily.
- It crushes readily, unless treated to be crush-resistant.
- It is susceptible to abrasion in wear; it may show signs of wear in one season.
- It spots quite easily.

MELTON

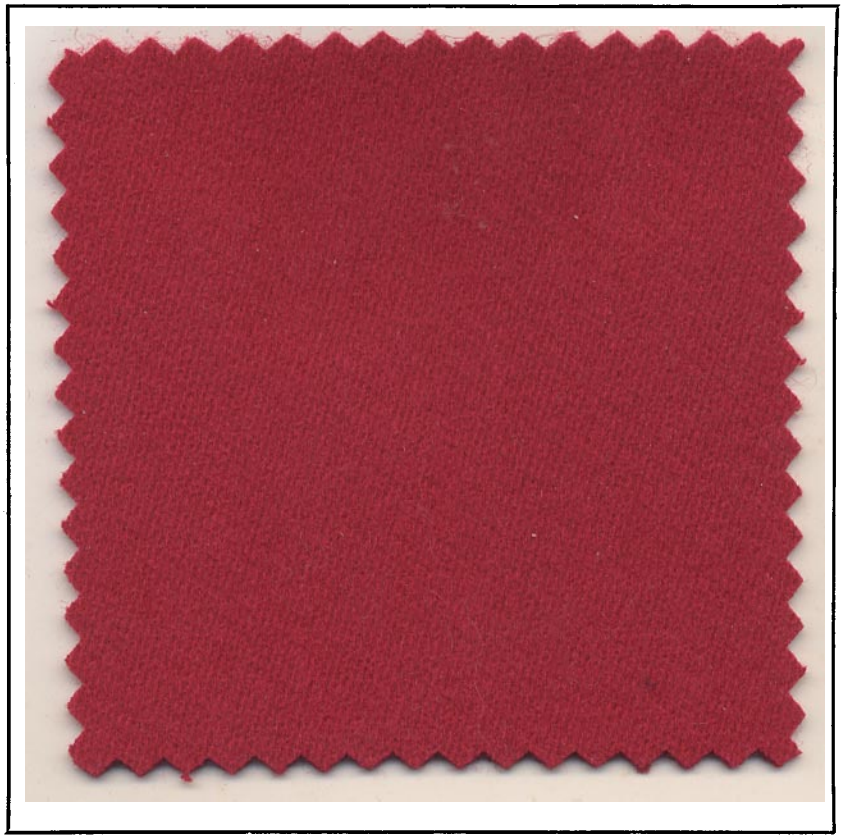
Definition: Melton is a thick, heavily felted or fulled wool fabric (twill or satin weave) with a smooth, lustrous, napped surface. In the less expensive fabrics, the warp or lengthwise yarn may be cotton instead of wool.

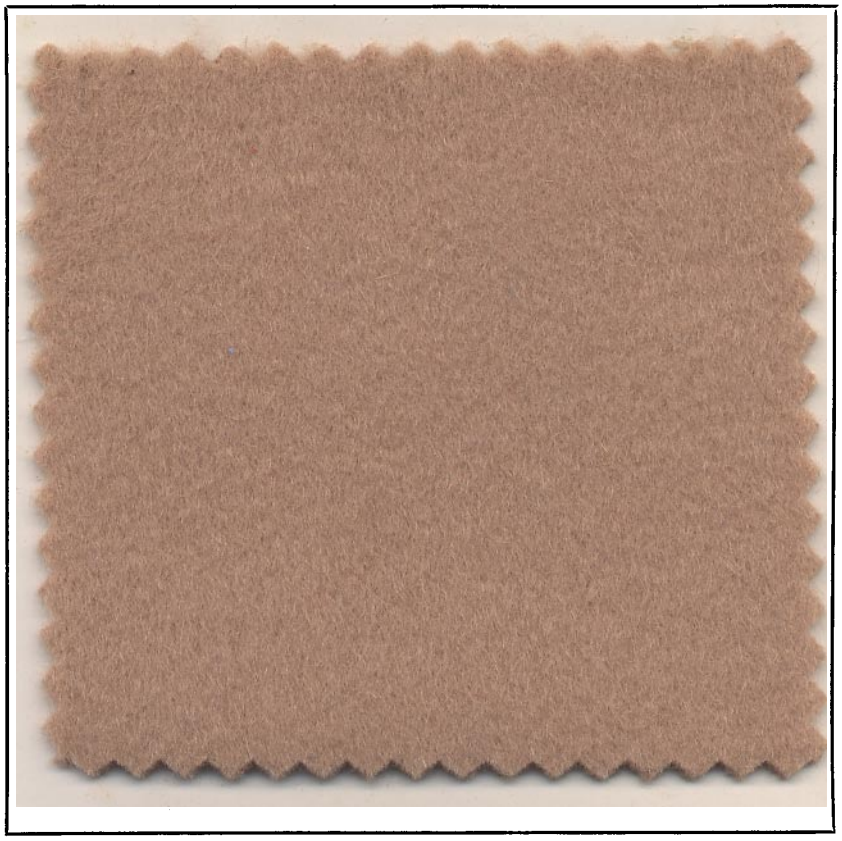
Advantages:

- Melton is a very warm fabric for outerwear garments, overcoats, and jackets.
- It tailors well; keeps its shape well.
- Melton is a durable and serviceable fabric.
- Melton drycleans satisfactorily.

Disadvantages:

- It is bulky and heavy to wear.





20% Mohair; 80% Wool.

MOHAIR

Definition: Mohair is a fiber derived from the Angora Goat (see page 19). It is also a term used to describe two entirely different types of fabric constructions:

(1) Mohair may be blended with wool or wool and synthetic fibers in a pile fabric construction for coating, drapery, and upholstery fabrics.

(2) Mohair may be used with cotton, wool or rayon, and woven into a shiny, stiff, wiry dress and suiting fabric.

Advantages:

- Mohair dress and suiting fabrics are cool to wear; they resist wrinkling.
- The smooth-type fabrics resist dust and soil.
- Mohair fabrics dryclean satisfactorily.

Disadvantages:

- The stiff fabrics become shiny with wear; they require care in pressing and finishing because they shine readily.
- The pile fabrics are susceptible to abrasion in wear.

SPECIALTY HAIR FABRICS

Definition: Specialty hair fabrics include a large class of dress, suit, and coating fabrics, including fibers from fur-bearing animals such as beaver, mink, seal, and angora; hair fibers such as Guanaco, Vicuna, alpaca, llama, cashmere, and camel's hair (see pages 275 and 277).

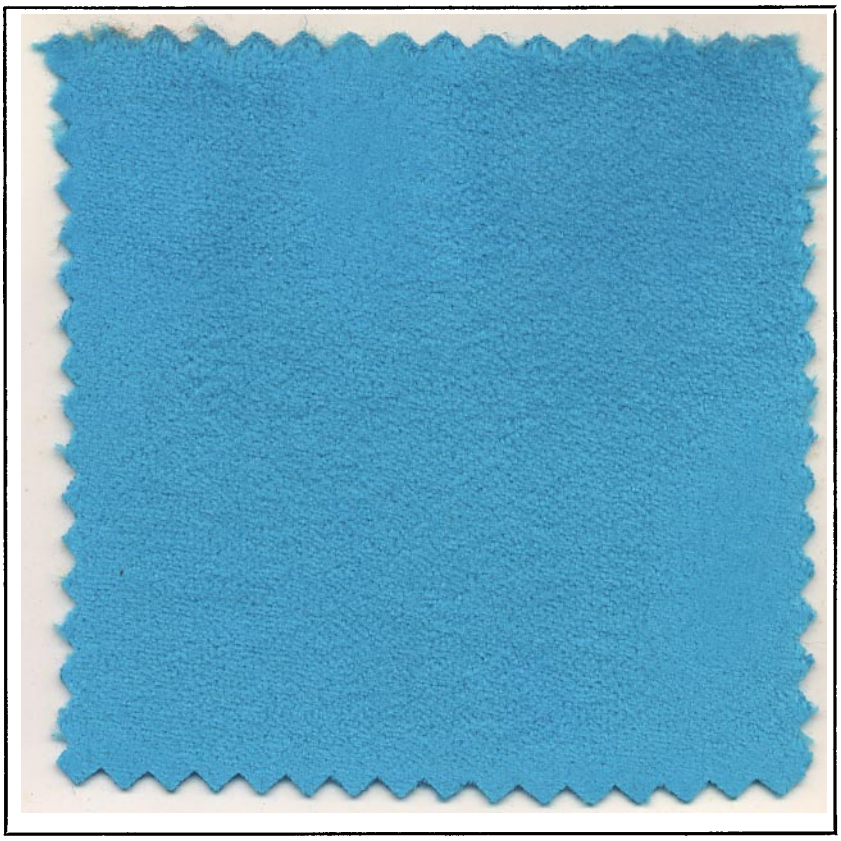
Advantages:

- These fabrics are unusual, very soft and luxurious in appearance.
- They are warm and comfortable to wear, yet light in weight.
- These specialty fabrics dryclean satisfactorily, but they require special care.

Disadvantages:

- These fabrics are very expensive.
- They are very susceptible to abrasion in wear. They may show signs of wear in the first season of wear.

15% Fur fiber; 85% Wool



Knitted Velour.

VELOUR

Definition: Velour is a French term meaning "velvet." The term velour and plush are used interchangeably for a pile velour construction. But velour also includes a variety of woolen fabrics characterized by a short, soft, thick pile, with either a twill or satin background, and given a velour finish. Velour fabrics may be made of cotton, wool, silk, mohair, or synthetic fibers. These fabrics may be distinguished from duvetyn (see page 283), because they have a thicker and longer nap and the base weave is not concealed as in duvetyn fabrics.

Advantages:

- This construction offers a wide selection of coat, dress, and drapery fabrics.
- They are rich and luxurious in appearance.
- They are durable and serviceable fabrics.
- This class of fabrics drycleans satisfactorily. They should not be wet-cleaned.

Disadvantages:

- Velour fabrics collect lint easily; it is difficult to brush dust and lint from them.
- The pile is susceptible to abrasion in wear and in drycleaning.
- Cotton velour does not give as good serviceability as a wool or mohair velour.

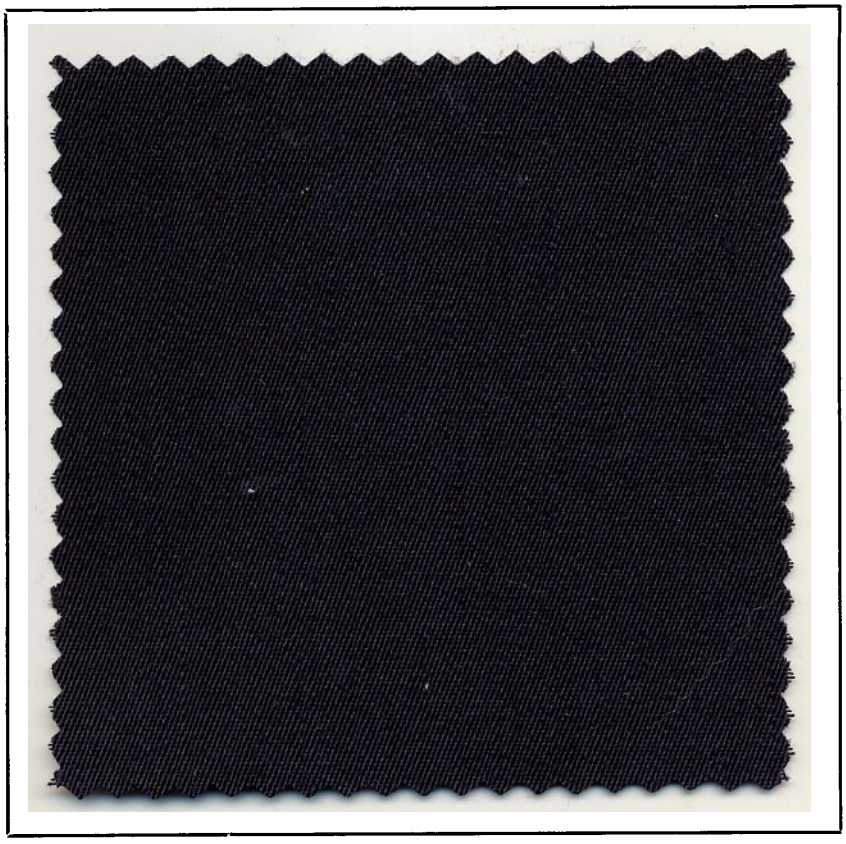
WHIPCORD

Definition: Whipcord is a twill weave fabric made of wool, cotton, synthetic fibers, or a blend of synthetic fiber with a natural fiber. The diagonal lines of the weave are very steep and usually run from left to right. In some fabrics the back or underside of the fabric is napped slightly. The fabric may be a solid color, or colored fibers may be mixed with white fibers resulting in a salt-and-pepper effect.

Advantages:

- Whipcord offers a wide selection for outerwear and sportswear garments.
- It is classed as a very serviceable fabric.
- Whipcord drycleans satisfactorily.

55% Acrilan, 38% rayon, 7% acetate—Chemstrand Company, Burlington Mills



ZIBELINE

Definition: Zibeline is a term derived from a small fur-bearing animal found in Siberia and a member of the sable family. Zibeline may be described as a sleek, lustrous, soft napped fabric made of wool, cotton, camel's hair, mohair, or synthetic fibers. It is characterized by the long sleek nap brushed, steamed, and pressed in one direction, thus hiding its basic satin weave.

Advantages:

- Zibeline fabrics are soft, beautiful, almost resembling fur.
- They are very warm, durable fabrics.
- Zibeline drycleans satisfactorily, but it requires special care.

Disadvantages:

- The less expensive grades lack serviceability. Some are harsh and coarse.
- The nap is easily disturbed; it is very susceptible to abrasion in wear and in cleaning.

E.

NON-WOVEN OR BONDED FABRICS

100% Wool Felt

FELT

Definition: Felt is a compact, thick fabric made by compressing and felting wool, fur, mohair, cotton, or rayon fibers together by the application of heat, moisture, and pressure. There are different grades and different weights of felt fabrics, ranging from very light to very heavy.

Advantages:

- Felt is an unusual fabric when compared with a woven fabric. It has many applications for sportswear, weskits, jackets, skirts, dresses, coats, hats, bags and draperies. It may be combined with woven fabrics in many interesting garment constructions.
- Felt fabrics offer a wide selection of colors, from solid shades to the irridescent felts achieved by the blending of dyed fibers, usually wool and rayon.
- Felt fabrics offer a wide selection of fabric designs, such as printed, painted, flocked, sequin, feathers, metallic yarns, embroidered designs.
- A 100% wool felt is more expensive than blended felts. However, it gives the best service for money invested.
- "Cross-cording" of felt imparts two-way stability. It prevents shrinkage and stretching of the fabric.

- Felt fabric may be given special finishes to improve the appearance, such as a starch finish to impart stiffness, a wax finish to make it smoother and more lustrous.
- Felt fabrics dryclean satisfactorily, but they require special care. Some felts shrink in steam finishing. But they may be pressed satisfactorily without steam.

Disadvantages:

- Combining felts with woven fabrics in a garment makes drycleaning and spotting more difficult.
- Low and medium quality felt fabrics cannot withstand a great strain. Thin areas in the fabric break. They cannot be mended satisfactorily.
- Low and medium quality felt fabrics are susceptible to abrasion. They rough up in wear and in drycleaning.
- Some felts are not relaxed in manufacture, therefore they may shrink in drycleaning and finishing.
- Some irridescent felts possess poor colorfastness to moisture (see pages 418-419). Spilling water or a beverage on the fabric can cause some dyes to bleed, staining the surrounding area.
- The wax finishes are solvent-soluble, leaving the fabric less lustrous after drycleaning; upon removal of the starch finish, the felt fabric so treated is less stiff.
- Some of the printed, painted, and flocked designs are affected adversely in drycleaning.
- Inferior felt is hard, coarse, looks shined and lacks body.

REINFORCED FELT

Definition: Light-weight felt with a net base differs from the regular type felt. It has a nylon net in the center with wool and rayon fibers felted to both sides of the netting.

Advantages:

- This type of felt construction is adaptable to many uses, such as skirts, dresses, jumpers, jackets, coats.
- The fabric is light-weight, yet strong.
- The fabric is supple, looks like a fine broadcloth.
- It drapes and tailors well; retains its shape.
- It may be given special water-repellent, stain and spot-resistant treatment.
- This fabric is drycleanable.

Disadvantages:

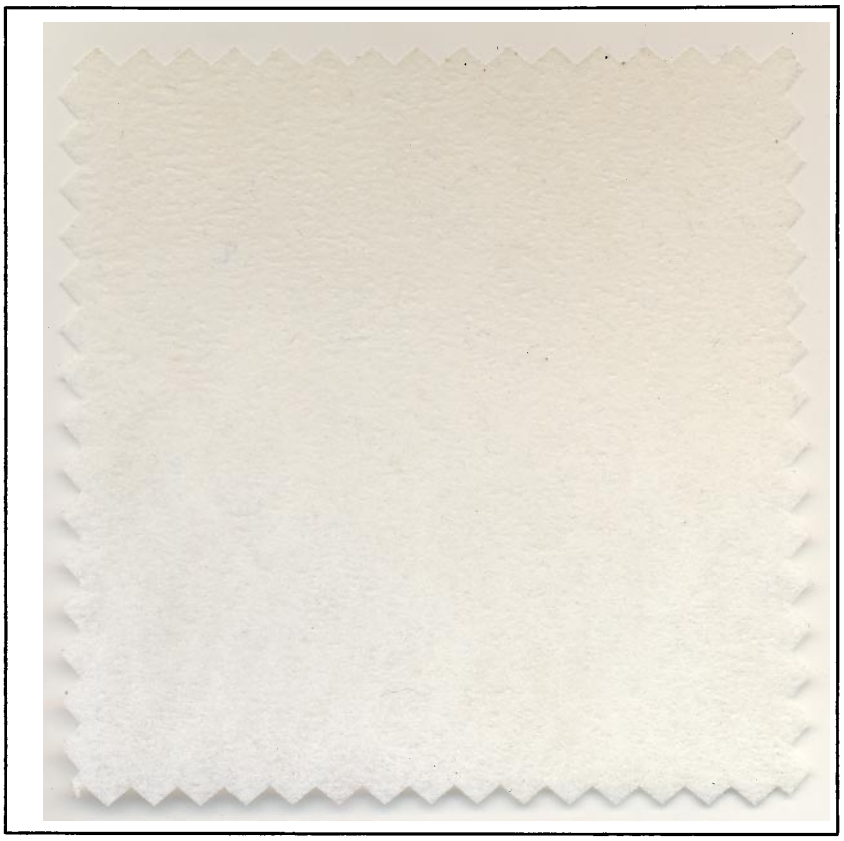
- A fabric made of this construction is susceptible to abrasion in wear and drycleaning.
- Undue strain may result in tears that cannot be mended without being visible.

* Patent applied for.

70% Wool, 30% Rayon, 100% Cotton, Scrim Net—The Filters Co.

BONDED FABRICS

TRADE-MARK NAMES	MANUFACTURERS
Adheron (Press on)	Kimberly Stevens
Evershape	David B. Carmel
Detex	C. H. Dexter
Dorron	Dorron Industries
Dura-weve	Scott Paper Company
Facemate	Chicopee Mills, Inc.
Interlon	Kenneth Stacy Corp.
Keybak; Keybak, Hot Iron	Chicopee Mills, Inc.
Kyrel; Stretch Kyrel (bias)	Kimberly Stevens
Lantuck	Kenneth Stacy Corp.
Masslinn	Chicopee Mills
Mistlon	Minnesota Mining and Mfg. Co.
Pellon Regular; Pellon all bias	Pellon Corporation
Pelomite (Shape Retaining) Press On	Pellon Corporation
Pelomite (Detail) Press On	Pellon Corporation
Shape-lon	Kenneth Stacy Corp.
Sta-Shape	Kenneth Stacy Corp.
Textyrl	DuPont
Veriform	Kenneth Stacy Corp.



Pellon—a non-woven fabric—Pellon Corp.

BONDED FABRICS

Definition: A non-woven fabric may be defined as a textile structure consisting of a web or mat of fibers held together with a bonding material. The interlocking of fibers is achieved by chemical bonding agents or a fusible fiber. This is done by mechanical work, chemical action, moisture and heat. Non-woven fabrics may be produced by the bonding action of any one or combination of these factors.

Non-woven materials can now be piece-dyed, printed, embossed, flocked or needle-punched to create surface interest.
Two basic types are made:

(1) Disposable items that are not designed to be drycleaned or laundered, such as disposable draperies or curtains, napkins, pillowcases, laboratory uniforms.
(2) Items made for structural parts of wearing apparel—interfacings and interlinings.

Non-woven interfacing fabrics may be classed according to:

1. Fiber content:
   (a) *Blends:* 70/30 rayon, nylon; 75/25 rayon, nylon; 60/40 nylon, rayon; 80/20 nylon, rayon; 60/20/20 rayon, nylon, polyester; 95/5 rayon and other fiber.
   (b) *Polyesters:* 100% Dacron.
   (c) *Wool:* 100% Virgin Wool.

2. Construction for end use:
   (a) Regular.
   (b) Bias.
3. Use in the finished garment:
   (a) Non-woven interfacing that is stitched into place.
   (b) Press-on non-woven facing that eliminates the need for basting or temporary stitching.

The adhering material may be applied in a:

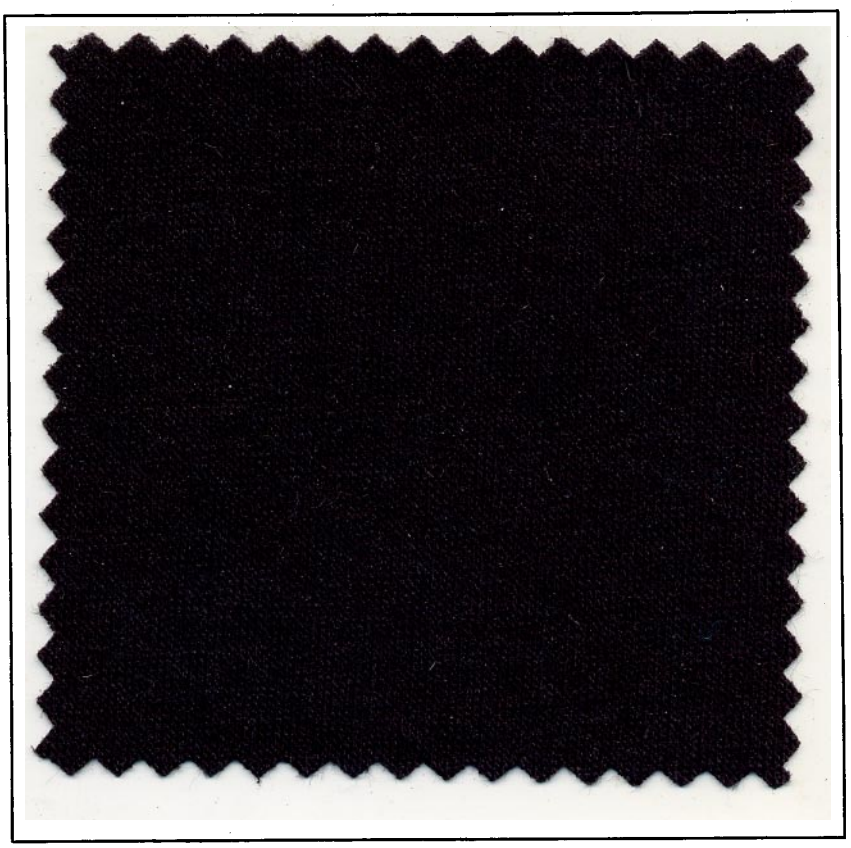
1. Smooth coating over entire surface of fabric.
2. Closely spaced uniformly arranged pinpoints that give the surface a granular feel.

Advantages:

- Non-woven fabrics have many uses, such as shoulder pads and interfacings and linings in coats, suits, dresses.
- Random distribution of fibers in the fabric gives better distribution of strength.
- Some non-woven fabrics are made to have stretch in the bias direction. This aids shaping various parts of a garment that is not cut on the straight grain of the fabric.
- Some non-woven fabrics are surface treated with a crystal-like granular coating on one side of the fabric. This makes it possible to iron the lining in place, thus eliminating stay stitching.
- Fabrics ranging from very light-weight to heavy-weight are available. Selection depends on end use. They are available in many colors—black, white, pastel shades.
- Non-woven fabrics are claimed to have good shape retention, are porous and flexible to provide comfort in wear.
- Non-woven fabrics are sold as drycleanable. Some are sold as wetcleanable.

Disadvantages:

- Thin, light-weight non-woven fabrics have relatively low tensile strength. Undue strain may result in tears that cannot be mended.
- Some of these fabrics lose their stiffness in wear and drycleaning or wetcleaning. They may also rough-up on the surface.
- Some of the fabrics stiffen and yellow with age. They absorb soil and dyestuffs readily from either a water or solvent cleaning system.
- Some of the press-on fabrics become loose from the outer fabric in drycleaning or wetcleaning. This is related to the surface of the fabric to which the non-woven fabric is bonded rather than the method of cleaning.
- If a press-on non-woven fabric is loosened from the fabric to which it is bonded, it may be resealed in some cases. Flat surfaces are more readily resealed than curved surfaces.
- Some of the earlier fabrics stained the outer fabric placed next to it. In most cases the stains could be removed by a special treatment in drycleaning.
- Some of the press-on linings stain the outer fabric. Such stains can be removed by a special treatment, but this usually entails taking the lining out of the garment.



Face, 50% Orlon, 50% Wool; Back, Acetate Tricot Sandwich.

LAMINATED URETHANE FOAMS

Definition: Knitted, woven, quilted, simulated leather and vinyl plastic fabrics are laminated to polyester urethane or a polyether urethane. The former are more widely used in textile applications because: (1) they resist drycleaning solvents; (2) they can be fusion-laminated.

There are three basic methods of bonding fabric to foam:

1. Open flame method (Fusion-laminated).
2. Chemical adhesive method.
3. Vulcanizing method.

Advantages:

- Laminated urethane foam fabrics provide warmth with less weight, less bulk.
- The foam does not support growth of bacteria or fungi.
- It is odorless and non-odor retaining.
- The foam will not bunch, mat, shrink or stretch.
- It is perspiration-proof, non-toxic, non-allergenic.
- The foam may be coated with a reflective finish.
- Fabrics that were never designed for outerwear may now be laminated and used for outerwear garments.

- Urethane foam eliminates the conventional interlining of outerwear garments.
- Laminating fabric to foam improves the stability of a fabric in some instances.
- Sandwiched foams (a fabric laminated to each side of the foam) are readily adaptable to reversible garment designs.
- Most urethane laminated foam fabrics dryclean satisfactorily. The foam is unaffected by the heat of pressing.

Disadvantages:

- The performance of urethane foam laminated fabrics depends to a great extent on the performance characteristics of the particular woven or knitted fabric.
- Some of the early laminates showed partial or complete separation of the fabric from the foam in drycleaning and wetcleaning. Improvements are being made to minimize this problem.
- Discoloration of the foam may occur if the foaming chemicals are not completely removed during manufacture.

Laminated Urethane Foams:

There are two basic methods used in bonding fabric to foam.

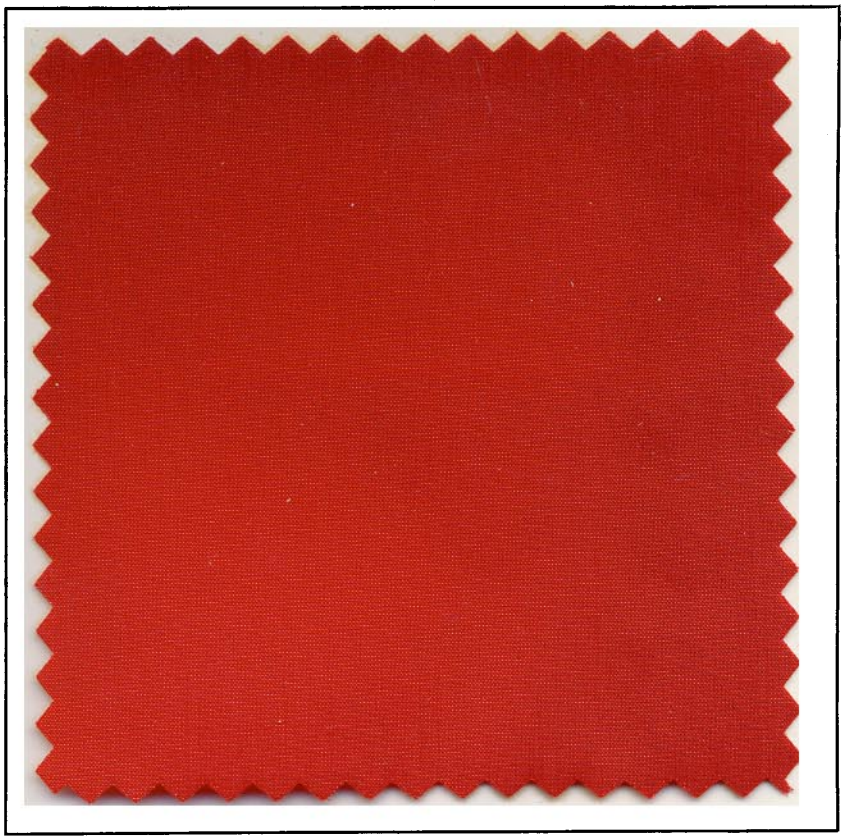
I. *Open Flame Method* (Fusion laminated).

This technique simply melts the foam by passing it over a gas flame or an electric bar with temperatures high enough to bring the foam to the melting point. The foam is then immediately passed through a roller, pressed against the fabric and the bond is made.

It is estimated that about 80% of all foam fabric laminations are done on open-flame equipment. The advantages claimed are that:

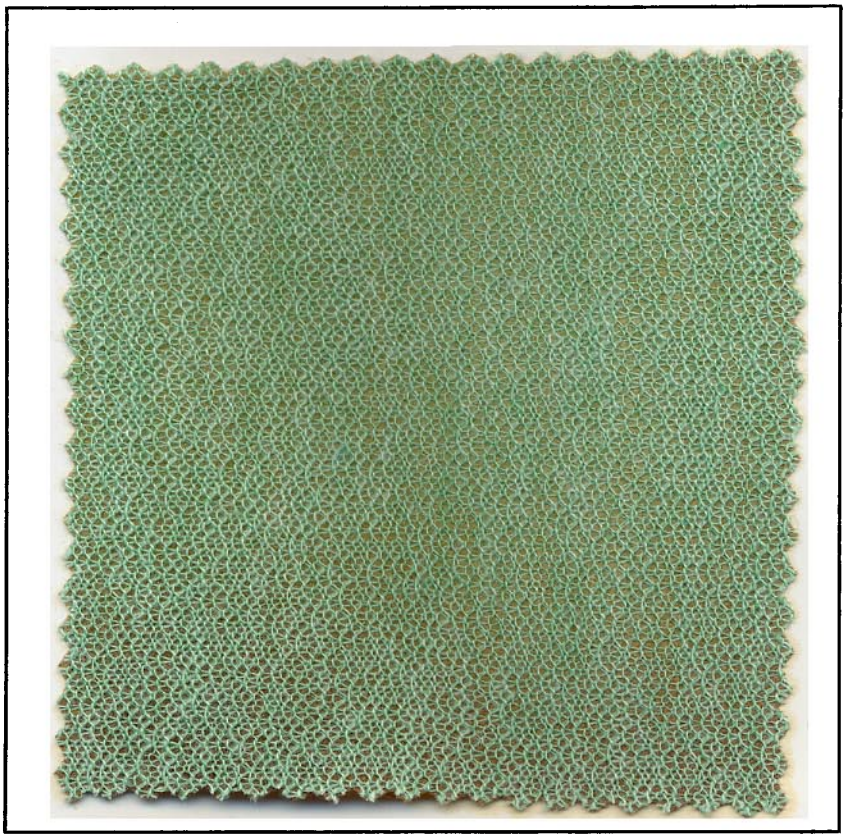
(1) Better bonding results.

(2) This method leaves the final fabric porous, while chemical bonding does not.



Nyland, 100%, bonded to Scott Apparel Foam, Travis Fabrics

100% Cotton Knit, bonded to Scott Apparel Foam, Originit Fabrics



II. *Chemical Adhesive Method.*

The chemical industry is manufacturing many adhesives for use in laminating urethane-foam to fabric. They range from cold-setting, water-based rubber to high temperature cured resins.

The chemicals used in bonding can be coated on the fabric by a roller or a knife, or they may be sprayed or printed onto the fabric.

The most widely used adhesive types are:

(1) Vinyl chloride-based solutions.

(2) Acrylonitrile rubber mixtures.

(3) Synthetic latex water-based emulsions.

(4) Combinations of the three.

III. *Vulcanizing Method.*

This method is still in the experimental stage. Vulcanizing foam to fabric is a radical departure from the present lamination methods. The technique currently used on some rug foaming operations would involve a method for the actual foaming of polyurethane directly to the fabric.

NON-SUPPORTED PLASTIC FILM

Definition: Various plastic materials may be rolled into a thin sheet to make a lightweight flexible film. These films may be made into different weights for different uses.

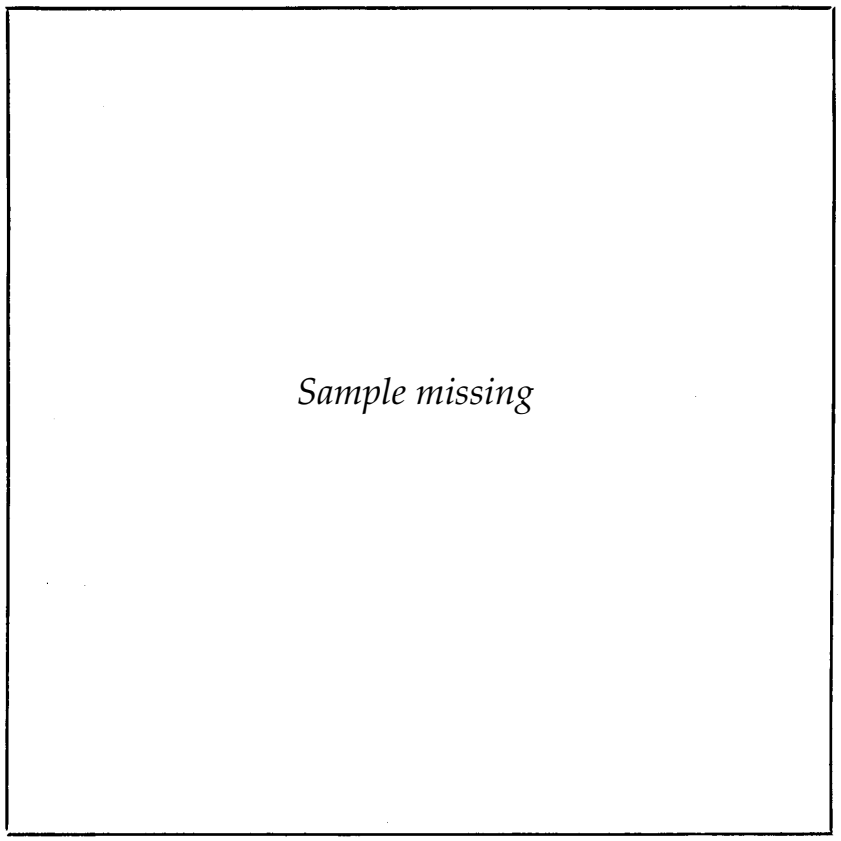
Advantages:

- This type film has found use as an interlining in jackets, because it serves as a good wind-breaker.
- These films are impervious to water and so are waterproof. Many types of rainwear garments and shower curtains are made from plastic films.
- These films resist soiling and can be cleaned readily by wetcleaning. They are not machine washable.
- Non-supported plastic films should not be drycleaned.

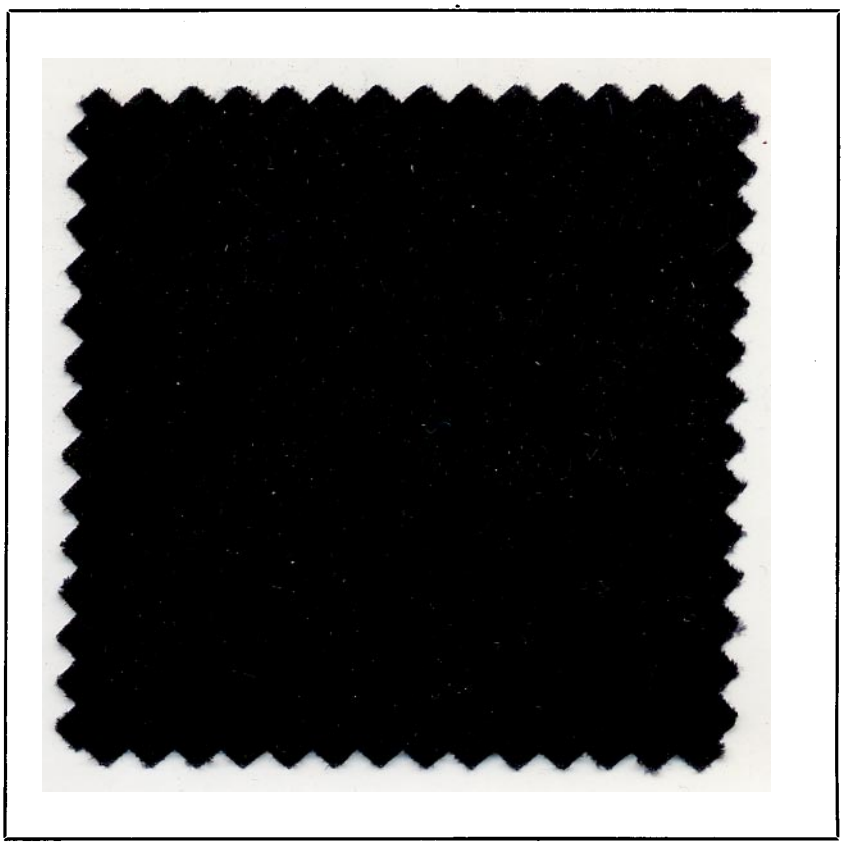
Disadvantages:

- Some of the films become yellow, brittle, and boardy with age.
- Some plastic films, if dried with heat, stiffen and shrink. (See page 546.)

Suedette Vinapex—Apex Coated Fabrics Co., Inc.



F.
PILE FABRICS



Syl-Mer® Finished Rayon Velvet

VELVET

Definition: There are many different types of velvet. All are made of a pile construction. The pile may be cut, uncut, or cut and uncut. Velvets may be made of silk, wool, mohair, rayon, acetate nylon. The background may be a plain, twill, or satin weave. Velvets are classed as V-type and W-type. In the V-type, the pile goes under only one warp yarn; in the W-type, the pile goes under and over two warp yarns. The terms used to describe certain definite types are:

Silk Velvet: Silk background weave, silk pile.

Cotton-backed Velvet: Cotton background weave, silk or synthetic fibers used in the pile.

"Chiffon" Velvet: A light-weight soft velvet with a short, thick pile, On close examination, it can be seen that the pile forms narrow stripes. This type of velvet may be made from silk or the synthetic fibers, such as nylon.

Transparent Velvet: A very light-weight, soft velvet, with fairly short pile. When you hold it to the light, you can see through it; hence the name "transparent."

Lyons Velvet: A heavy, crisp, closely woven, stiff fabric with an erect, short, thick pile. It may have a cotton or silk back with a silk or synthetic fiber pile.

Brocade Velvet: This sometimes is called façonné velvet. The fabric is woven like other velvets, then chemicals are applied in the desired pattern to the back of the fabric. This carbonizes the pile when heated and leaves the untreated pile to form the pattern. The background weave that is unaffected by the chemical treatment is readily visible on the right side of the fabric.

Advantages:

- Velvet is one of the richest, most luxurious of fabric constructions. It offers a wide selection in weights, color, and design.
- Some velvets are given special finishing treatments for specific purposes, such as crush-resistant finishes, stain and spot-resistant finishes, water-repellent finishes.
- Acetate and nylon pile velvets have natural crush resistance.
- The twill weave constructions and the W-type pile give good serviceability.
- Velvets generally dryclean satisfactorily. Nylon velvet is wetcleanable.

Disadvantages:

- Silk and rayon velvets crush readily. This may be overcome by treating the fabric with a crush-resistant finish when it is manufactured.
- Acetate velvet crushes and mats permanently with moisture and pressure. (See page 474.)
- The pile is removed easily from V-type velvets in wear and in drycleaning. (See page 494.)
- Velvet has a natural tendency to pick up lint.

VELVETS WITH DESIGNS

Definition: Velvet fabrics may be given design treatments that make them appear different from the regular type velvets. These may be described as follows:

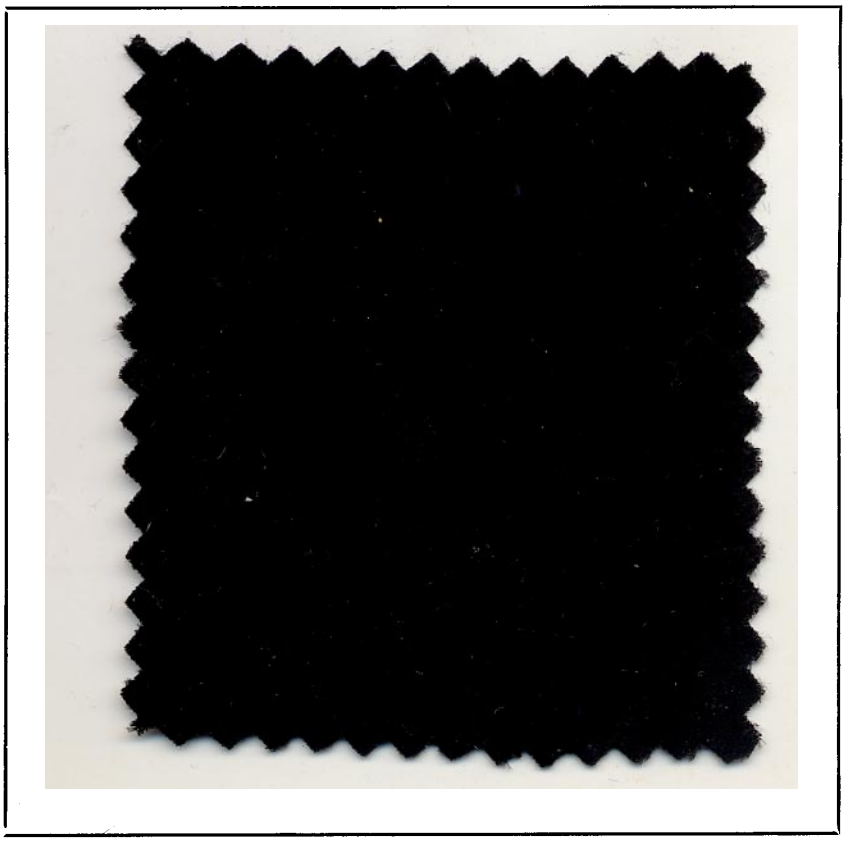
Panné Velvet: This fabric has a rich looking, satiny appearance because the pile is pressed down in one direction by passing the fabric over rollers in the presence of steam and pressure.

Crushed Velvet: This fabric is placed between rollers and heat; moisture and pressure are applied. The pile is not pressed in one direction, like panné velvet; hence, there is a variation of reflection of the pile, creating a mixed effect, dull with bright.

Embossed Velvet: This may also be called "Sculptured Velvet." In making this fabric, the areas of the pattern that are to stand higher (the longer pile) are first laid flat. Then the fabric is sheared to a lower height (the short pile). The fabric is then steamed to raise the pile that has been flattened so that it stands higher than the sheared part of the design.

Moiréed Velvet: The fabric is passed through rollers that are engraved with a design. In the presence of heat, pressure, and moisture, the design is transferred to the fabric. (See page 181.) Some of these fabrics are given a water-repellent finish.

Embossed Acetate and Rayon Velvet



Velvet with Metallic Yarns: Metallic yarns are woven into the velvet construction to create beautiful and unusual designs.

Velvet Painted Designs: Gilt and colored pigments are applied to the velvet fabric in unusual and beautiful designs.

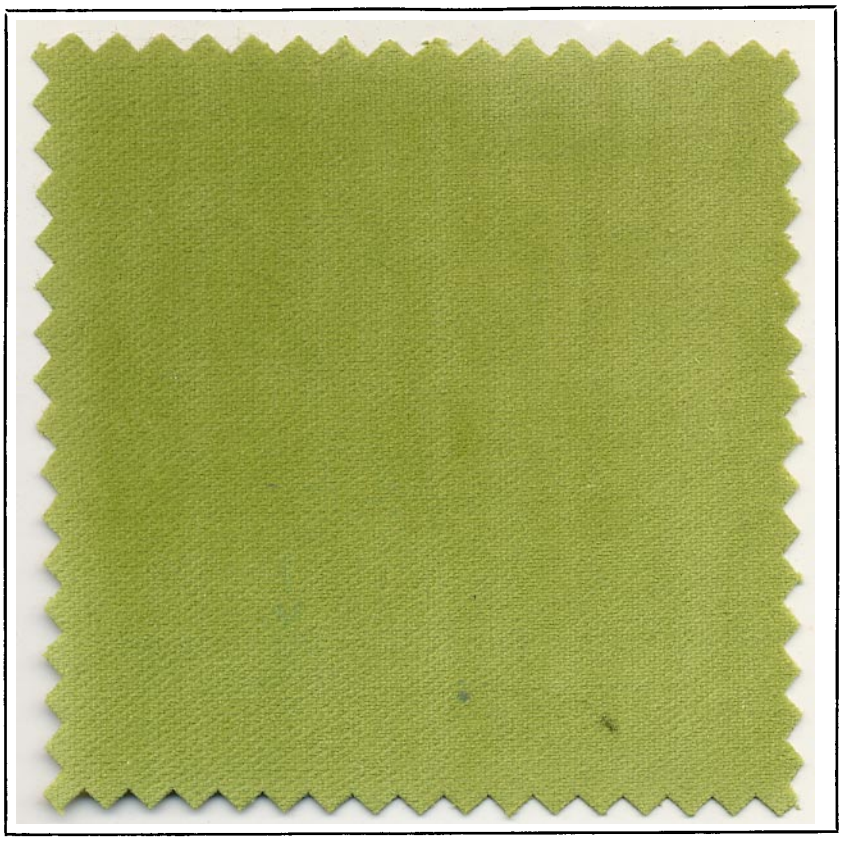
Velvet with Glitter: Sequins, glass particles, gold, and silver particles may be applied to velvet fabrics to create interesting designs and textured effects.

Advantages:

- Decorative design applications to velvet offer a wide selection of different and unusual fabrics for formal wear.
- These fabrics are drycleanable; they require special care.

Disadvantages:

- This class of fabrics has limited serviceability. They should be purchased with this in mind.
- Any design that is put in with heat, moisture, and pressure may be removed by heat, moisture, and pressure in wear and in drycleaning.
- Flocked glitter designs are as serviceable as the adhesive used to apply them to the fabric. Some dryclean satisfactorily; others do not.
- Painted designs are affected by the solvent action of the drycleaning solvent, and mechanical action in wear and drycleaning.



Marvelteen, fast pile. (100% Cotton)—

VELVETEEN

Definition: Velveteen is sometimes called "Cotton Velvet." It is classed as a filling pile construction because two sets of filling yarns are used to one warp yarn. One filling yarn weaves with the warp yarn to form the ground weave (plain or twill). The other filling yarn weaves into the warp at intervals and then floats over a number of warp yarns. After weaving, the floating yarns are cut and brushed to form the short, closely set pile. The pile is not as erect as velvet. It slopes slightly, thus making the fabric surface lustrous.

Advantages:

- Solid colors and printed designs offer a wide selection for a variety of uses.
- Velveteen made of combed cotton yarns gives better performance in use than velveteen made of carded cotton yarns.
- Velveteens that derive their sheen from highly mercerized cotton yarns have a lasting luster.
- Velveteen fabrics dryclean satisfactorily.

Disadvantages:

- Velveteen fabrics are very susceptible to abrasion in wear and cleaning.
- The wax finishes used to make some velveteens lustrous are lost in dry-cleaning, leaving a dull-appearing fabric.
- Velveteen collects dust and lint very easily.

CORDUROY

Definition: Corduroy may be identified by the raised cut pile that runs the lengthwise direction of the fabric. Extra filling yarns float over a number of warp yarns that form either a plain or twill-weave ground. After weaving, the floating yarns are cut, the pile brushed and singed to produce a clear cord effect. The back of corduroy is slightly napped. Corduroy was originally a cotton fabric, but today it may be made of synthetic fibers such as acetate, Zantrel, Dacron, Acrilan. Corduroy can also be made to stretch in either the warp or filling direction of the fabric.

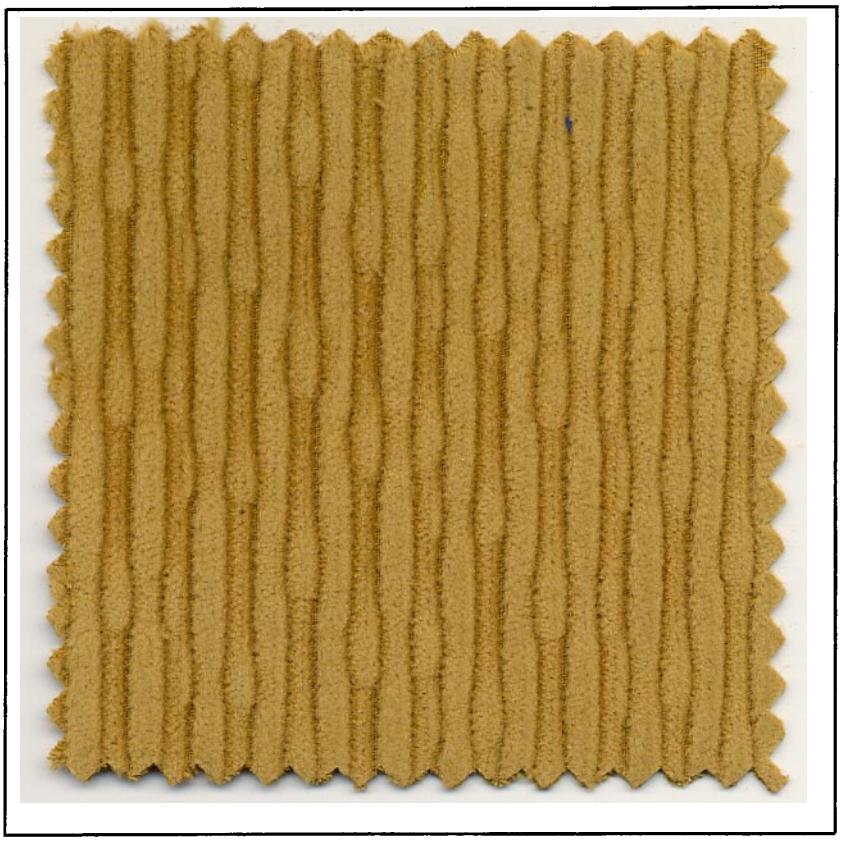
Advantages:

- Corduroy is available in a wide selection of solid colors and prints.
- This method of fabric construction in heavy weights results in a very serviceable fabric for men's and boys' jackets, rainwear, and slacks.
- Light-weight corduroy fabrics are used for dresses and skirts. It drapes, it pleats, it flows. This is sometimes called "Chiffon" corduroy.
- Variation in wales, from wide wale to pin wale, offers many surface effects from which to choose.
- Corduroy fabrics dryclean and wetclean satisfactorily.
- Stretch corduroy provides comfort in wear.
- Corduroy can be given special crease-resistant, water-repellent, spot-resistant finishes.

5½-ounce Combed Cotton Corduroy

Disadvantages:

- Unless treated, corduroy has a tendency to mat down in areas subjected to pressure or abrasion.
- Some dyes used to give this class of fabrics color, are alkaline-sensitive.
- Some dyes used on corduroy bleed excessively in wetcleaning.
- Crushing or matting of the pile causes a difference in light-reflection, making the crushed or matted area look like a spot or stain.
- Some corduroy shrinks excessively if not stabilized for shrinkage control.
- Some stretch fabrics do not recover at points of strain after wear and cleaning, resulting in an unacceptable appearance.



Corda Veluta, 100% cotton

CORDUROY DESIGNS—SPECIAL FINISHES

Recently manufacturers have varied the standard corduroy constructions, and have given corduroy special finishes. Typical examples are listed with their trade names (that may vary from year to year).

Wide Wale Corduroys:

St. German—a 6-rib, ten-ounce corduroy of 100% cotton.

Cross Country—an 8-rib, twelve-ounce corduroy of 100% cotton.

Ten Wales—a wide wale 10-rib, ten-ounce corduroy of cotton.

Non-durable and durable water-repellent and spot-resistant finishes can be applied. Everglaze ® and Minicare ® finishes may also be applied. The application of a finish increases the cost per yard.

Novelty Corduroys:

Boucle—a seven-ounce cotton corduroy that has a cross-cut or nail-head appearance.

Corda-Veluta—a ten-ounce cotton corduroy with a wide wale that is wavy in appearance.

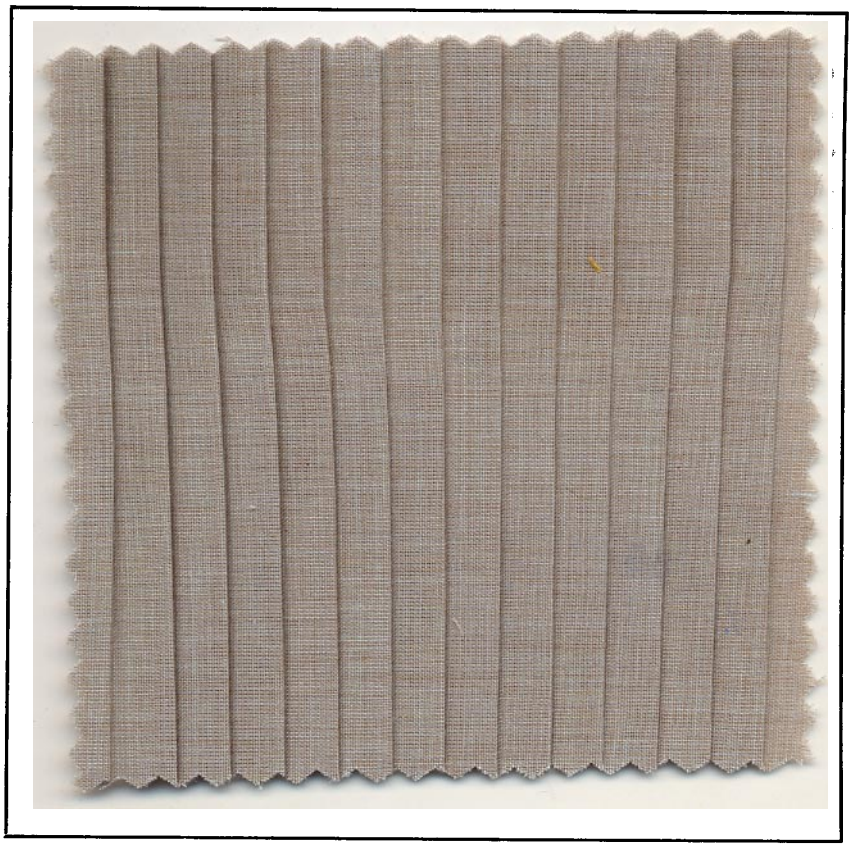
Printed Corduroy—Standard corduroy is printed with modern or conventional designs. Animal designs, such as leopard, are very popular.

Definition: A pleated fabric is one which has folds arranged in a pre-determined pattern. There are several methods of pleating:

1. *Hand Pleating:* The fabric is pleated by a secretly guarded art that has been handed down through the Indian tribes. This is sometimes called "broomstick" pleating. It is most commonly used in the Squaw-type garment.
2. *Form Pleating:* The fabric is put into a paper pattern form and steamed or cured in a steam box or autoclave. Examples are sunburst, circular, and fancy pleats.
3. *Machine Pleating:* There are three types of machine pleating:
   a. *Conventional:* The fabric is fed into a pleating machine that folds the fabric into knife or box pleats.
   b. *Random or Ripple:* This is a trick method of pleating, whereby the fabric is pushed together mechanically, thus forming an irregular rippled pattern.
   c. *Embossed Pleats:* Pleats are pressed into the surface of the fabric in the form of scallops, squares, or corrugations.

G. PLEATED FABRICS

35% Cotton; 65% Dacron



Advantages:

- The various methods of pleating offer a wide selection of beautiful fabrics and garment designs.
- Some fabrics made of the heat-sensitive fibers can be given durable pleats that have good pleat retention.
- Some fabrics that are first treated with a resin finish before pleating can be given durable pleats that have good pleat retention.
- A closely woven or knit fabric gives better pleat retention than a loosely woven or knit fabric.
- In most cases, pleats following the grain of the fabric give better pleat retention than pleats on the bias.
- Most pleated garments are better drycleaned than wetcleaned. All pleated fabrics require special care in handling regardless of the method used to clean them.

Disadvantages:

- Many pleated fabrics lose their pleat sharpness and smooth appearance with wear and cleaning. The pleats separate. They need to be re-set. The degree of separation depends on:
  1. The fiber content of the fabric. Heat-sensitive fibers give better pleat retention than fabrics of non-heat-sensitive fibers, unless given a special finishing treatment.
  2. The construction of the fabric—a closely woven or knit fabric gives better pleat retention than a loosely woven or knit fabric. In general, woven fabrics give better pleat retention than knit fabrics.
  3. The method of pleating used. Generally speaking, the autoclave method produces better pleat retention than the steam box method.
  4. The conditions of pleating regardless of the method, such as temperature, time, rate of cooling.
  5. Garment design. A tightly fitted garment will result in a greater degree of pleat separation than a loosely fitted garment.
- Novelty pleated fabrics cannot be re-set unless the garment is taken apart and re-pleated by a pleating firm.

H.

RIBBED WEAVE FABRICS

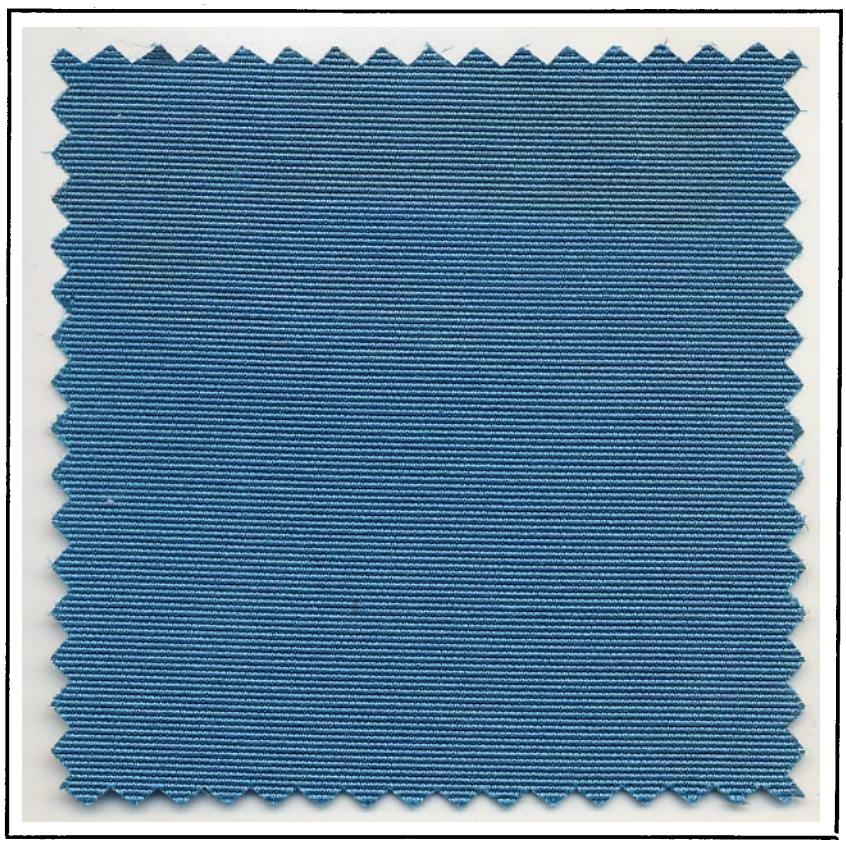
The ribbed weave fabrics present similar problems in wear and in cleaning. Therefore, we shall discuss the advantages and disadvantages for this group of fabrics, and then define them individually.

Advantages:

- This class of fabrics offers a wide selection in surface design, texture, weight and finish, ranging from soft to stiff fabrics.
- Depending on fiber content, yarn construction, and variations of weave, these fabrics may range from fairly durable fabrics to fabrics with limited serviceability.
- These fabrics can be stabilized for shrinkage control, but brightness of color and stiffness of hand may be sacrificed.
- The majority of these fabrics dryclean satisfactorily, but they require special handling in drycleaning.

FAILLE

100% Silk



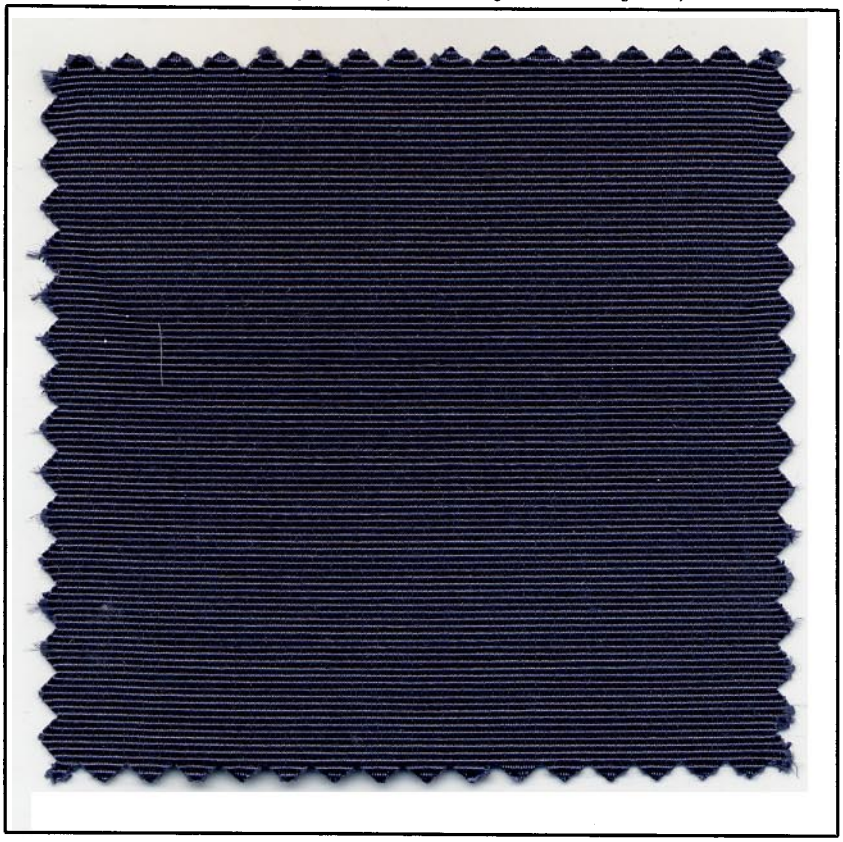
Definition:

Faille is a soft, yet firm ribbed weave fabric made of cotton, silk, rayon, acetate, or other synthetic fibers alone or in combination. Compared with grosgrain, faille is softer and contains larger, more flattened ribs, almost inconspicuous. It resembles taffeta in its degree of stiffness.

Disadvantages:

- Loom-finished ribbed weave fabrics have a tendency to shrink. This shrinkage may be progressive from one to five or more drycleanings. (See pages 535-536.)
- Loom-finished ribbed weave fabrics shrink to a greater degree in wet-cleaning or laundering than in drycleaning.
- Shine develops on some ribbed weave fabrics during wear in those areas subjected to rubbing, such as the seat or elbows of a garment.
- Many of the dark colored fabrics chafe in wear and cleaning. Your drycleaner may improve this condition in some instances.

Cortalene, Warp, rayon; Filling, cotton. Finished for shrinkage control. (Less than 2.0% when drycleaned)—Belding Heminway Co., Inc.



BENGALINE

Definition:

Bengaline is a firmly woven ribbed weave fabric made of single yarns in the warp and heavy ply yarns in the filling. The warp yarns may be of rayon, acetate, nylon or silk; the filling yarns of cotton, rayon, acetate, wool alone or in combinations. The ribs are slightly heavier and rounder than in poplin; more distinct than in faille. The fabric is usually stiffer than in poplin or faille.

OTTOMAN

Definition:

Ottoman is the heaviest of the ribbed weave fabrics. It has a large, heavy, more rounded and pronounced rib because of the heavy three to six-ply filling yarn. The single-ply warp yarn may be of silk, rayon, acetate. The filling yarn may be of cotton, cotton and wool, wool and synthetic fibers.

Characterized Finish—residual shrinkage less than 2.0%, 51% cotton, 49% rayon—Duchess Fabrics, Inc.

GROS-DE-LONDRES

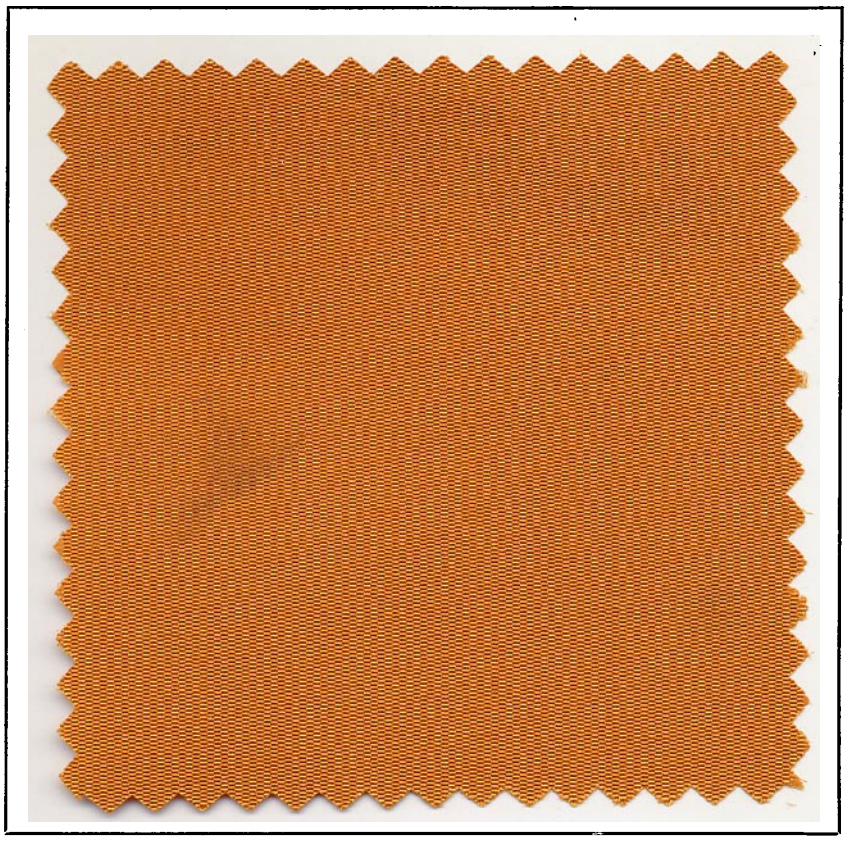
Definition: A closely woven, yet light-weight ribbed weave fabric of silk or synthetic fibers. It is distinguished by its alternate heavy and fine ribs. A heavy flat rib may be followed by one or more fine ribs and then another heavy rib. It has a stiffness comparable to taffeta.

GROSGRAIN

Definition: Grosgrain is a hard-finished, closely woven, uniformly ribbed weave fabric made of cotton, silk, or synthetic fibers in combination. The ribs are heavier than in poplin and more rounded than in faille.

REP OR REPP

Definition: Rep or "Repp" is a firmly woven ribbed weave fabric with a prominent rounded rib. It may be made of cotton, silk or the synthetic fibers. The rib may run either in the lengthwise or crosswise direction of the fabric.



100% Silk

BARATHEA

Definition: Barathea is a broken ribbed weave fabric that gives a granular textured effect because of the short broken ribs in the filling direction. It is a rich, soft-looking, fine fabric. It may be made of silk, rayon, or acetate. A worsted filling may sometimes be used.

PIQUÉ

Definition: Piqué is a term used to describe a class of ribbed weave fabrics with varied surface textures formed by a raised rib or wale in the lengthwise direction of the fabric. These wales may vary in width and thickness. Piqué may be made by embossing a fabric to make it appear like a woven piqué fabric (see page 173). The fabrics in this group may be described as follows:

Pinwale piqué: Very fine cords running the lengthwise direction of the fabric.

Birdseye piqué: Actually this is a woven simple figure weave, or embossed with a small diamond shaped design with a small dot in the center.

Waffle piqué: This fabric is woven with a raised cord, or embossed to resemble a honeycomb or a waffle.

Novelty Piqué, 100% Cotton.