

# SWATCH FACT FILE

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# SYNTHETICS TIMELINE

**1910 AD:** Viscose Rayon was introduced and marketed as an artificial silk

**1936 AD:** The first polyamide oil-based synthetic was made to replace silk called Nylon and was first introduced in New York and London, hence the name "NY-LON"

**1960 AD:** Polyester and Spandex are developed and introduced to the U.S. market

**1923 AD:** Acetate is used in France as airplane wing varnish and was later produced as a fiber then a fabric that was introduced to the U.S. within the following year

**1941 AD:** Polyester is invented by chemists of the Calico Printer's Association

**1972 AD:** Lyocell fiber is sourced from Eucalyptus trees and creates limited waste and pollution



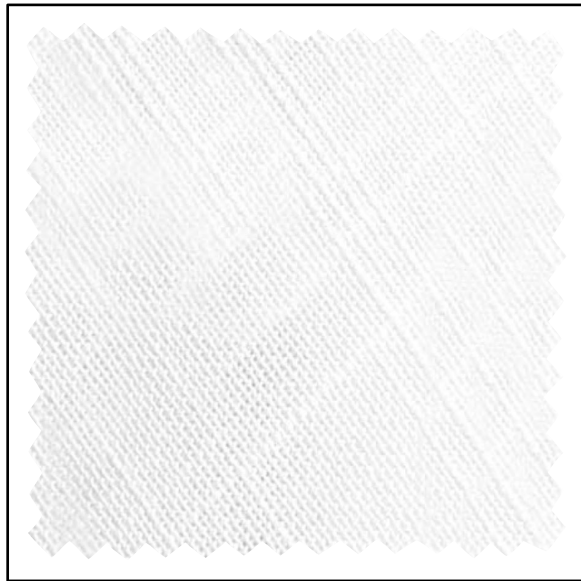
# LINEN



# **LINEN**

**Linen is a cellulose fiber which comes from the flax plant. It is mainly produced in Canada, Germany, and France. It is traditionally constructed in a plain weave. When ready for harvesting, flax plants are pulled from the root and go through a process of removing the seeds called rippling. The fibers are then separated from the stalks also known as retting and left to dry before threshing. Threshing is a process that extracts long-line fibers. Finally, it goes through hackling and drafting which is a process that combs out short fibers untangling it into slivers.**

**White Linen**  
**100% Linen**  
**Plain Weave**



# LINEN TIMELINE

**+8000 BC:** Since the beginning of civilization, flax is believed to have created linen-like garments, specifically in the area of ancient Mesopotamia

**301 BC:** Ancient Greeks and Romans use linen to create garments as a sign of royalty, light, and purity

**1145 AD:** Linen becomes the most popular plant fiber amongst commoners in Europe to make clothing, diapers, bedding, caulking, etc.

**2600 BC:** Ancient Egyptians used linen to mummify bodies by soaking linen cloth strips in resin and herbal preservatives

**768 AD:** After the fall of the Roman Empire, the French Leader Charlemagne revived linen declaring it is the most sanitary fabric

**1700-1950s:** Finest Linen is produced in the “linen triangle;” Ireland, Scotland, France, and Germany

## ***EVERYDAY PROS***

Breathable	Lint-free
Lightweight	Durable
Absorbent	Cool
Antibacterial	Lustrous

## ***EVERYDAY CONS***

Wrinkles  
Dry clean or gentle/hand-wash  
Can get damaged in a dryer

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## ***ENVIRONMENTAL PROS***

Biodegradable  
Recyclable  
Cruelty Free  
Less energy to produce  
Less pesticides and water needed

## ***ENVIRONMENTAL CONS***

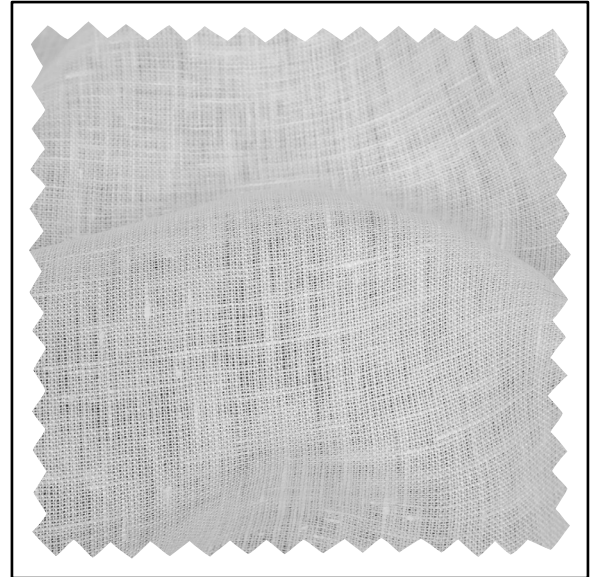
Can be dyed with toxic chemicals

## LIGHTWEIGHT LINEN

A lightweight linen is light and thin with a plain weave. Can be found in both fine and smooth textures. It is perfect for hot climate garments.



100% Linen  
Plain Weave





## HEAVY LINEN

A plain open weave linen with visible surface texture and coarse yarn count. It is best used for relaxed unstructured or semi-structured clothing.



100% Linen  
Plain Weave



## POLKA DOT PRINT LINEN

A printed linen goes through a printing process where the fabric is steamed at a high temperature to get the ink into the fiber. It is a mid-weight linen that has been polka dot printed.



100% Linen  
Plain Weave

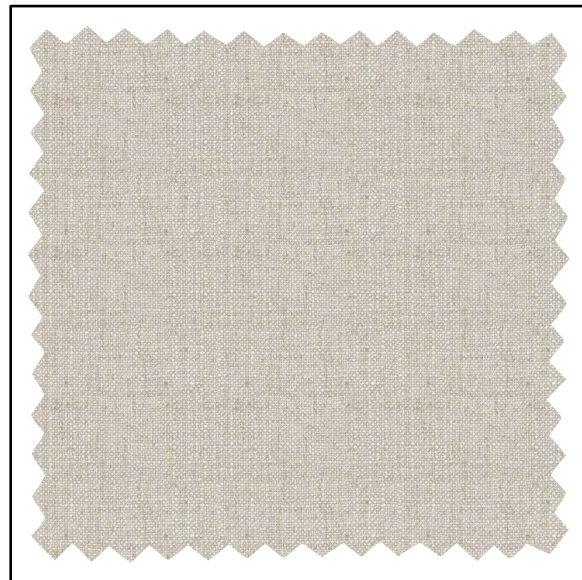


## NATURAL LINEN

A mid-weight plain weave linen made with untreated/undyed fibers. Natural linen has a firm texture, but it will become softer with age. It is perfect for relaxed silhouette.



100% Linen  
Plain Weave



## HOLLAND LINEN

Holland linen is a lightweight unbleached linen that has a paper-like texture with a Holland finish or glazed surface. The name is given to any fine plain woven linen imported from Europe, specifically the Netherlands.



100% Linen  
Plain Weave







# COTTON

# COTTON

**Cotton is a natural staple fiber that grows around the seed pod or boll and is harvested from the Gossypium Herbaceum plant. It is also known as the most commonly used natural fiber. Cotton has been cultivated since antiquity, but the invention of the cotton gin has led to a widespread of use and affordability. Today, cotton is mainly produced in US, Uzbekistan, China, and India. It can be knitted and woven in a variety of different ways. Usually cotton is carded which is a process where the cotton fibers are brushed raw/washed to prepare them for spinning. Additionally, cotton can go through a process called combing which provides a smoother finish to the resulting fabric.**

**Printed Cotton**  
100% Cotton  
Plain Weave



# COTTON TIMELINE

**+5000 BC:** Cotton shrubs native to tropical and subtropical regions of the Americas, Africa, and India are believed to be grown and used by early civilizations, specifically the fragments of cotton found in Mexican Caves

**800 AD:** Arab merchants brought cotton to Europe

**1500-1600 AD:** Cotton seeds are planted in the US by colonists

**3000 BC:** Cotton was being grown and spun in Pakistan and Egypt

**1492 AD:** Christopher Columbus discovered cotton in America and by the 1500s cotton was known throughout the world.

**1793 AD:** Eli Whitney patents the invention of the cotton gin that could work 10 times faster than by hand, making cotton more accessible and cheaper to produce than linen.

## ***EVERYDAY PROS***

Breathable	Versatile
Hypoallergenic	Absorbent
Affordable	Durable
Machine Washable	Soft

## ***EVERYDAY CONS***

Wrinkles  
Fades  
Shrinks

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## ***ENVIRONMENTAL PROS***

Biodegradable  
Recyclable  
Cruelty Free

## ***ENVIRONMENTAL CONS***

Chemically dyed (not always applicable)  
Polluting treatments (not always applicable)  
Pesticides (not always applicable)  
Requires a lot of energy/resources  
Needs a lot of water to produce



## COTTON POPLIN

A poplin is a strong and medium-weight cotton with a plain weave. The weft threads are thick while the warp threads are finer and close together, creating a “rib effect.” It is perfect for making a skirt, trousers, and sometimes shirts



100% Cotton  
Plain Weave

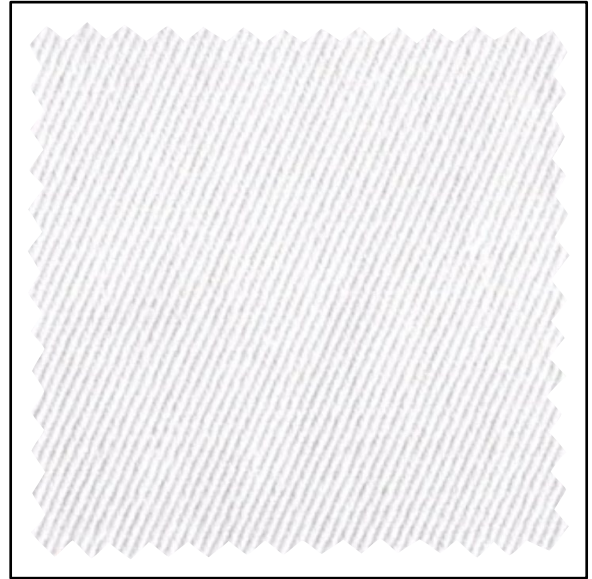


## COTTON TWILL

A cotton with a twill weave. It comes in a variety of different weights and qualities. Normally used to make anything between a fine shirt to heavy woven blazer.



100% Cotton  
Twill Weave



## COTTON JERSEY

A soft and flexible cotton that has a single knit construction. Cotton jersey is treated with a process called mercerizing (usually with a caustic soda solution) to remove the “fuzzy” surface and give it a smooth lustrous appearance. It is great fabric to make t-shirts or relaxed loungewear.



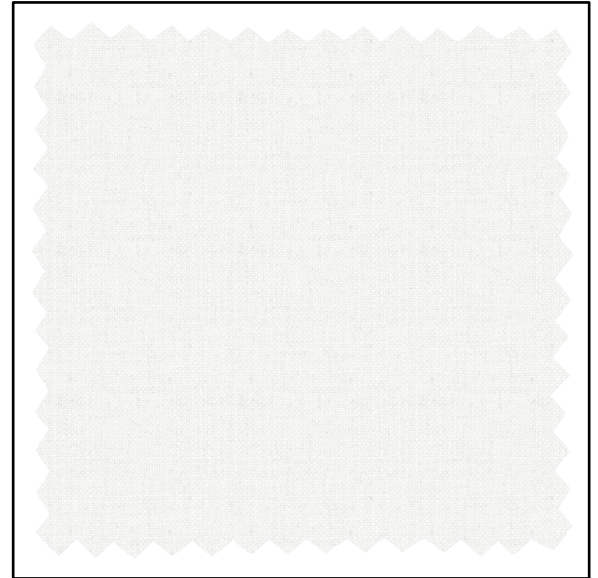
100% Cotton  
Rib Knit



## COTTON CHINTZ

A cotton chintz is a plain woven cotton with a close thread count that has been glazed by friction, calendaring, or a surface glazing treatment.

100% Cotton  
Plain Weave

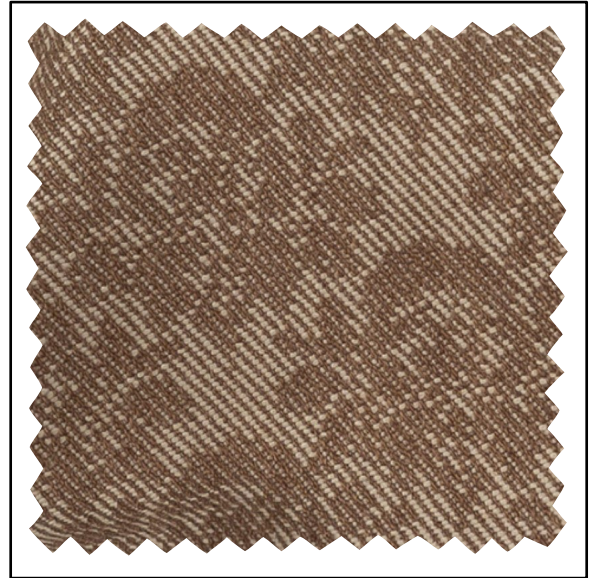




## COTTON JACQUARD

Jacquard is a diamond designed weave that is created on a loom that allows an individual control on the interlacing of any number of warps.

100% Cotton  
Jacquard Weave

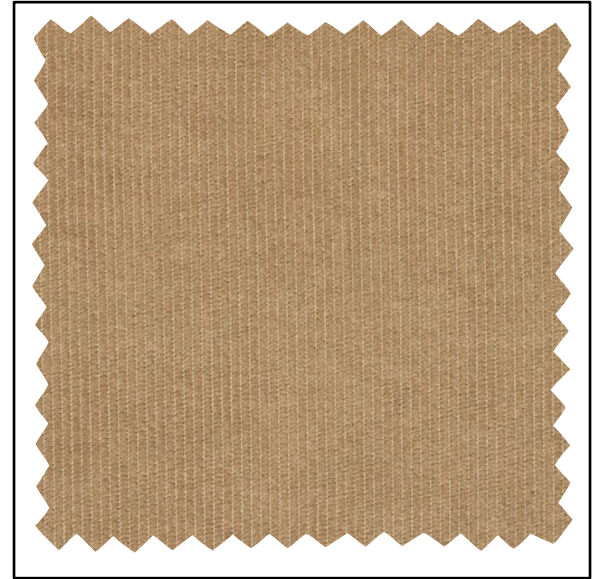


## COTTON CORDUROY

Corduroy is a cut-pile fabric that has raised ridges or ribs that run vertically down the fabric parallel to the selvedge.



100% Cotton  
Cut Pile

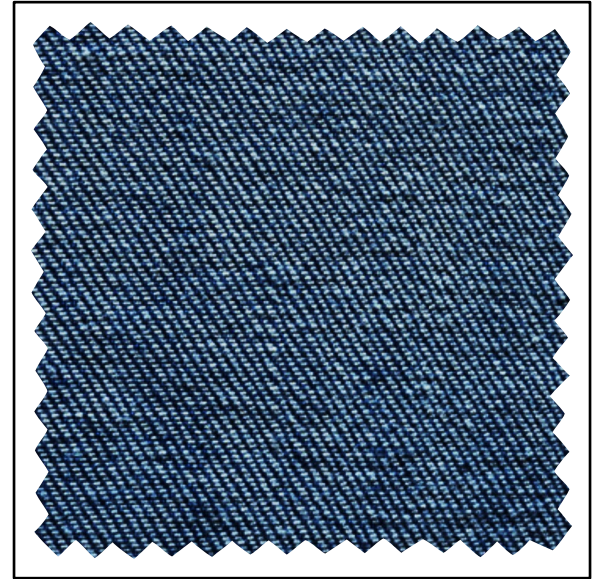


## COTTON DENIM

Denim is a heavy twill constructed cotton. The name denim originated from a French fabric called serge de Nimes meaning a coarse heavy twill cotton fabric. Typically, denim has indigo-dyed warps and undyed wefts.



100% Cotton  
Twill Weave

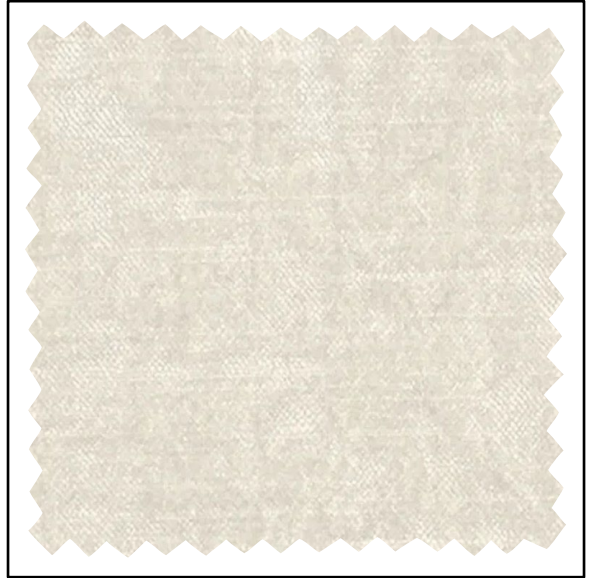


## COTTON VELVET

Cotton velvet is a luxurious pile fabric. The touch and drape is fine and fluid or sometimes stiff depending on the weight/fibers. Velvet pile is created from warp yarns that are woven over wires or rods that are inserted into the loos of raised alternate yarns. When the rods are removed the loops are cut to create a pile fabric.



100% Cotton  
Cut Pile



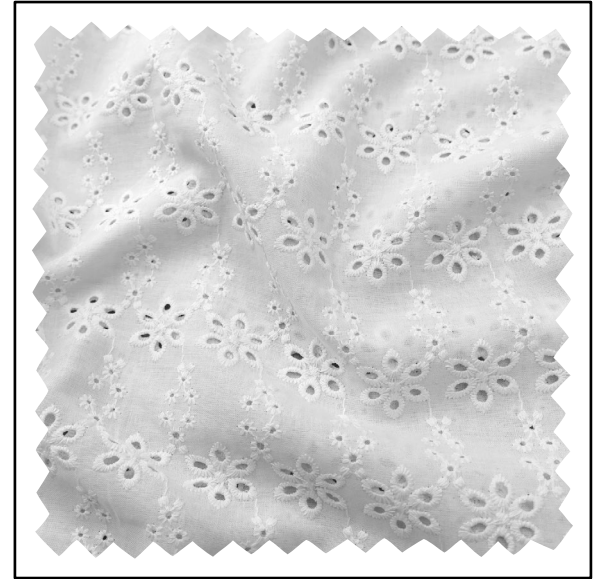


## COTTON BRODERIE ANGLAISE

Cotton broderie anglaise is a white work technique (white stitch on white cloth) that involves embroidery and oval holes cut out of the fabric and decoratively overstitched. Today, it is created by machine and found on dresses but it's name refers to English embroidery as it was popular in the 19th century.



100% Cotton  
Plain Weave



## COTTON VOILE

Cotton voile is a lightweight, semi-sheer, plain weave fabric made by using tightly twisted yarn with a net-like quality. It is perfect for delicate blouses and dresses.



100% Cotton  
Plain Weave





# WOOL



# WOOL

Wool is a natural fiber that grows naturally on sheep and is composed of a protein called keratin. However, it can also be made from other animals such as goats, alpacas, rabbits, camels, and etc. Wool is mainly produced in Australia, New Zealand, and China. When the hair of the sheep is grown they are sheared to extract its wool. Then the wool is cleaned and carded, also known as a way to organize fibers parallel to one another to prepare for spinning. Once that is done, the fibers are then spun into yarn and are woven or knitted into fabric.

**Virgin Wool Check**

100% Wool

Twill Weave



# WOOL TIMELINE

**+10000 BC:** During the stone age, people used the sheep and other animal hides for warmth

**400 BC:** The first woven wool garments are made and new breeds of sheep from the Near East are brought to Europe

**1699 AD:** The British force American colonies to only trade wool with Britain

**1000-3000 BC:** The Persians, Greeks, and Romans breed sheep and distribute the wool throughout Europe

**1275 AD:** England imposes export tax on wool called the “Great Custom”

**1845 AD:** Australia becomes the leading producer of wool and still is today

## ***EVERYDAY PROS***

Thermal retention	Warm
Wrinkle resistant	Self Cleans
Fire resistant	Absorbent
Holds shape	

## ***EVERYDAY CONS***

Expensive	Itchy
Dry clean/hand wash	Pills
Prone to water damage	
Can get damaged in a dryer	

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## ***ENVIRONMENTAL PROS***

Biodegradable  
Recyclable  
Easy to dye

## ***ENVIRONMENTAL CONS***

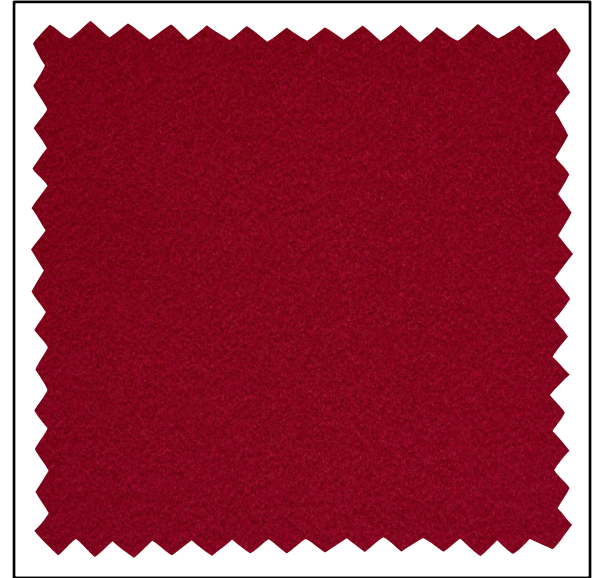
Animal Cruelty  
Requires a lot of energy/resources

## VIRGIN WOOL

Virgin wool is wool that comes from a lamb's first shearing. It is the softest and finest wool that is produced making it more expensive when compared to other types of wool.



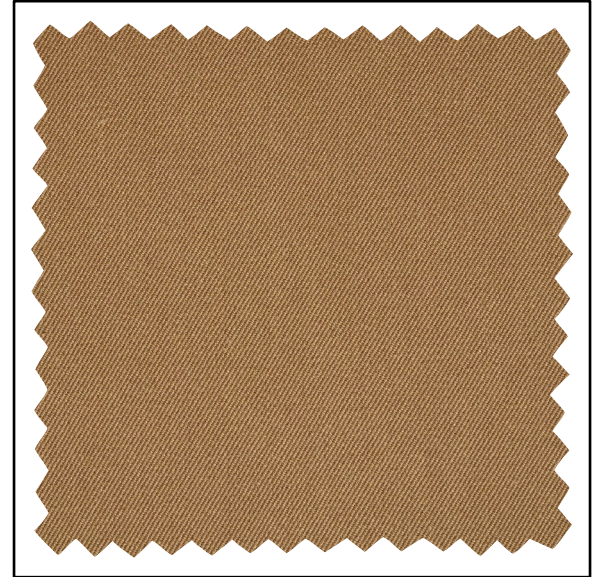
100% Wool  
Knit



## CAMEL WOOL SUITING

Wool suiting is a fine-weight fabric that is constructed with a twill weave. It is perfect for high quality tailoring because it retains its shape.

100% Wool  
Twill Weave



## WOOL FELT

Felt is a non-woven cloth that can be produced by matting, condensing, and pressing wool fibers together. Felting is achieved in the industry by chemically processing the wool or using felting needles.



100% Wool  
Felt





## WOOL BARATHEA

Barathea is a durable fabric with a modified plain weave called Hopsack in which two or more warp yarns are treated as one yarn. Barathea is typically used for men's jackets and blazers.



100% Wool  
Plain Weave



## WOOL GAUZE

Gauze is a lightweight fabric with a plain weave. Wool gauze is airy, weightless, and wrinkle resistant. The open weave makes it suitable for unstructured clothing.



100% Wool  
Plain Weave



## WOOL DELAINE

Delaine is a compact high-grade plain weave that is made from fine-combed wool. It can be used for draping or to make pleats.



100% Wool  
Plain Weave



## GREY WORSTED, SUITING WEIGHT

Worsted refers to the high quality of yarn that is used to make the fabric. The name itself derives from a village in England county of Norfolk called Worstead. It is used to create suits and other tailored garments and is made in a twill construction.

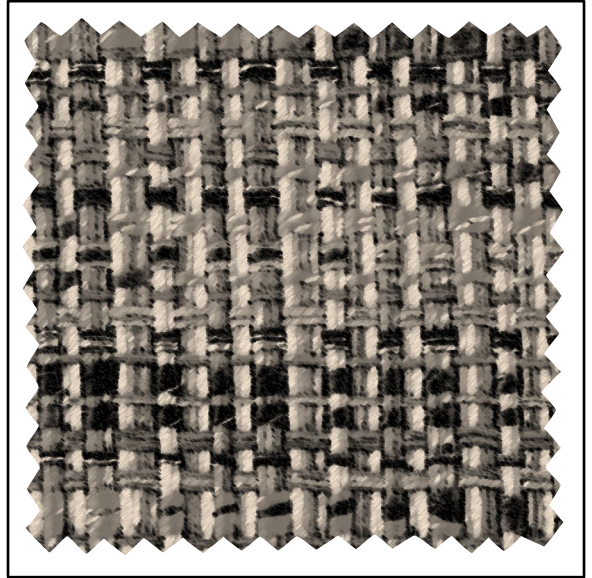
100% Wool  
Twill Weave



## WOOL BASKET WEAVE

The wool basket weave is a mid-weight staple fabric. It is ideal for coats and outerwear garments.

100% Wool  
Basket Weave



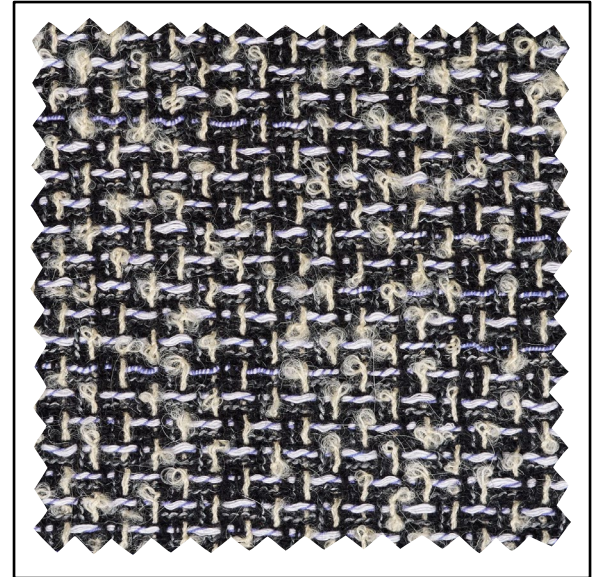


## WOOL TWEED

Tweed is a textured woolen fabric that can be in a plain, basket, or twill weave. It can be course or smooth in texture. Today, tweed is smoother and made more fine-weight for tailoring fabrics.



100% Wool  
Twill Weave



## BOTANY WOOL SERGE

Serge refers to a fabric with an even sided twill weave and a clear or flat finish. The term serge is of Latin origins meaning silk. Botany wool is a merino wool that originates from Botany bay where the original merino sheep in Australia were kept. The name implies a sense of prestige.



100% Wool  
Twill Weave



# SILK



# SILK

Silk is a natural protein fiber that is produced in a fine continuous filament by the cocoon of the *Bombyx Mori* moth larva. Also known as the most luxurious natural fiber, silk is mainly produced in China and India. The silk filament is created by boiling the cocoon before the moth can chew its way out. Silkworms spin two silk strands that are held together by a gummy protein substance called sericin. Then the cocoon is cooked to soften the sericin gum and the extracted silk filaments are reeled or wound into bobbins producing a long smooth thread. Then a series of applications of twists, also called thrown threads, are done to the fibers to prepare it for spinning. Once it has been de-gummed/prepared for dyeing, the fibers are spun and are spent to be woven or knitted.

**Printed Silk Charmeuse**

100% Silk

Satin Weave



# SILK TIMELINE

**3600 BC:** Earliest silk textile is found in China and was considered to be more valuable than gold (rumor has it that empress Leizu was having tea in the garden and a silk cocoon fell in her boiling tea transforming it into silk fibers)

**300 AD:** Silk production spreads to Japan and is used to make garments for royalty and the upper class

**1000 AD:** Silk spinning wheel was invented

**130 BC:** The Silk Road allowed merchants to trade and introduce silk throughout Europe and the Middle East

**552 AD:** Byzantines begin to cultivate silkworms

**1845 AD:** First silkworm diseases appear causing a silk shortage and an increase in demand



## ***EVERYDAY PROS***

Lusterious                      Strong  
Hypoallergenic              Breathable  
Odor resistant  
Temperature regulating

## ***EVERYDAY CONS***

Wrinkles  
Expensive  
Prone to sunlight damage  
Loses 20% strength when wet  
Dry clean or gentle/hand wash

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## ***ENVIRONMENTAL PROS***

Biodegradable  
Recyclable  
Easy to dye  
Less energy to produce

## ***ENVIRONMENTAL CONS***

Animal Cruelty

## **SILK ORGANZA**

Organza is a thin plain-weave fabric that is sheer and typically made with silk. It has a smooth texture. Italy and France produce expensive couture qualities of organza while China and India compete to produce cheaper options.



100% Silk  
Plain Weave



## SILK CHIFFON

Chiffon is a sheer lightweight fabric that is woven from interchangeable S and Z high-twist crepe yarn. The yarn slightly puckers when it is woven to add an element of stretch to fabric. Chiffon is traditionally used for eveningwear and lingerie because of its magical, light, and floating appearance.



100% Silk  
Plain Weave



## SILK HABOTAI

Habotai is known as the most practical and basic silk. It is semi-sheer and crisp with a plain weave silk used for quilting and casual clothing.



100% Silk  
Plain Weave



## **SILK CREPE DE CHINE**

Crepe de Chine is a liquid and supple silk. It is the finest and lightest silk with a plain weave.

100% Silk  
Plain Weave





## SILK SATIN

Silk satin is the most commonly known silk. It is made with a satin construction and is luxurious. Traditionally, it is used for eveningwear and lingerie.



100% Silk  
Satin Weave



## SILK CHARMEUSE

Charmeuse is created by using creped yarns in a satin weave construction. It has tremendous luster with a liquid-like touch and it does not hold its shape. Typically used to make eveningwear, lingerie, and wedding gowns.



100% Silk  
Satin Weave



## SILK GEORGETTE

Georgette has a semi-sheer appearance and is more stable than chiffon. It has a crepe texture and was named after the French dress maker Georgette de la Plante in the early 20th century.



100% Silk  
Plain Weave



## IRRIDESCENT SILK TAFFETA

Taffeta is a stiff and crisp plain woven fabric. The name is derived from Persian meaning ‘twisted woven.’ It can hold it’s shape and is oftenly used for ball gowns, wedding dresses, and linings of garments.



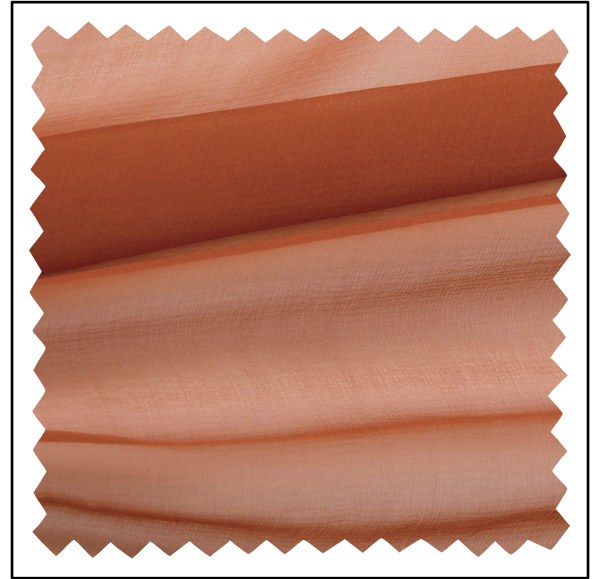
100% Silk  
Plain Weave



## SILK MOUSSELINE

The name Mousseline means ‘muslin of silk’ in french. It is a sheer lightweight plain weave that is similar to chiffon.

100% Silk  
Plain Weave





## NATURAL SILK

Natural silk is a quality of wild Indian silk. It has a natural tree bark color with a horizontal texture. The tree bark effect is achieved by creating it with irregular wefts and fine warps.



100% Silk  
Plain Weave





# SYNTHETIC & SEMI SYNTHETIC



# **SYNTHETIC & SEMI-SYNTHETIC**

**Man-made fibers are made by using a chemical process with polymerized molecular compounds such as crude oil. It can also be made artificially by using a reproducing cellulose process from wood pulp. These manmade fibers can be blended with natural fibers to achieve targeted properties that natural fibers lack on their own. Synthetic fabrics are also made to be a cheaper alternative to their natural counterparts.**

**Iridescent Polyester**  
**100% Polyester**  
**Plain Weave**



## ***EVERYDAY PROS***

Hypoallergenic	Cheap
Moisture Wicking	Drys easy
Wrinkle resistane	Stretchy
Preformance benifits	
Mashine Washable	

## ***EVERYDAY CONS***

Not breathable  
Absorbs oil and odor  
Deteriorated with every wash  
Flammable  
Pills easy

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## ***ENVIRONMENTAL PROS***

Cruelty Free  
Sometimes recycable  
(Lyocell/Viscose) Is Biodegradable.

## ***ENVIRONMENTAL CONS***

Cab be made out of chemicals  
Releases microplastics in the ocean  
Not Biodegradable  
Waste in production and after thrown  
out harms the environment and  
animals around

## NYLON

Nylon is a man-made oil based fiber. It is lightweight with a smooth texture and it known to be durable abrasion resistant. Nylon is the second most used man-made fiber in the US.



100% Nylon  
Plain Weave



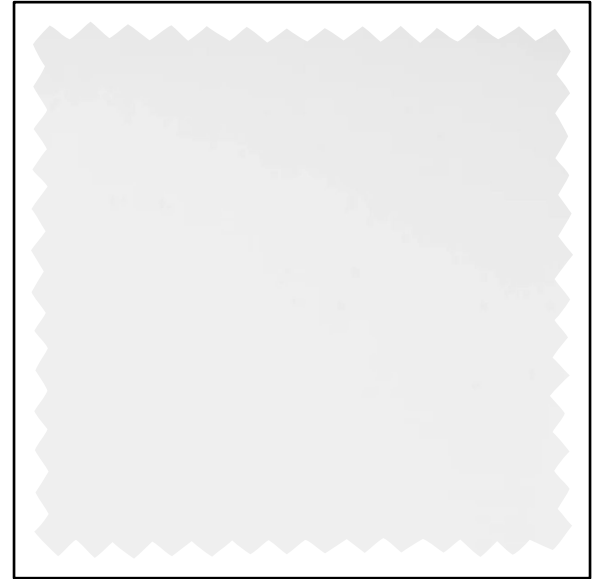


## RAYON

Rayon is a regenerated cellulose fiber that is usually made from wood pulp. It has a plain weave construction with good draping qualities.



100% Rayon  
Plain Weave

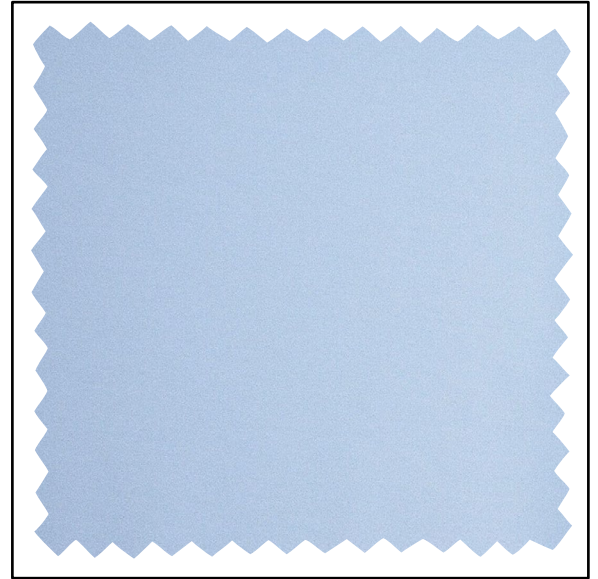


## POLYESTER

Polyester is an oil based man-made fiber. It strong fiber that is an inexpensive alternative to silk chiffon. Also, it is the most commonly used sythetic fiber in the world.



100% Polyester  
Plain Weave



## WIDE STRIPED DOUBLE KNIT

A double knit refers to the fabrics being fused together to create a double knit, not to be confused with double knitting where the threads are interlocked and inseparable.

50% Wool 50% Acrylic  
Knit

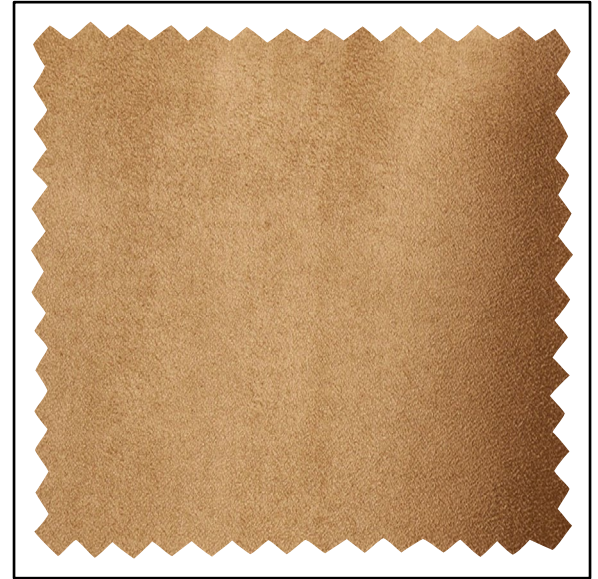


## SUEDETTE

Suedette is made of polyester in a compact twill construction with a suede-like surface that mimicks the appearance of fine lamb suede fabric. It can be medium to heavy weight and is best used to make jackets, and structured skirts/pants.



100% Polyester  
Twill Weave



## RAYON AND NYLON BROCADE

Traditionally, brocades are woven with silk, however, today there are man-made alternatives that are used to minimize cost. Brocades are made on a Jacquard loom to give the appearance of an embroidered fabric.



55% Rayon 45% Nylon  
Jacquard Weave





## MICROFIBER

Microfiber refers to synthetic fibers that are finer than natural fibers. It is typically made out of polyester and has a soft durable texture. It dries quickly and is ideal for performance and leisure clothing.



100% Polyester  
Twill Weave

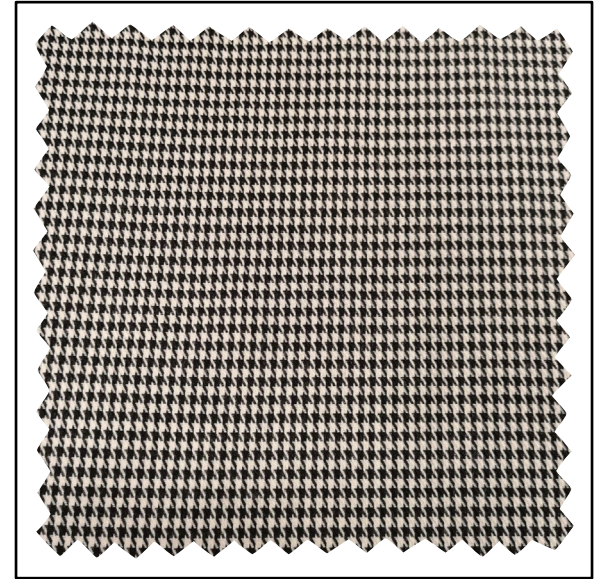


## DOGTTOOTH POLY-VISCOSE TWILL

The Dogtooth design originates from the woollen and worsted cloth industries. It is a tight houndstooth check design with a twill weave construction.



65% Polyester 35% Viscose  
Twill Weave



## PVC

PVC is made of/refers to a polyester and nylon based fabric that is coated in polyvinyl chloride, hence the name PVC. It has insulating properties and offers excellent waterproof protection.



## Polyester Cotton Blend Plain Weave



## SILVER LAME

Lame is a term used to name any fabric with metallic or metal laminate threads. Metal fibers are made out of metal or plastic-coated metal. It is made by a lamination process that seals a coloured aluminium film around nylon, acetate, or polyester.



100% Nylon and  
silver-coloured aluminium film  
Plain Weave

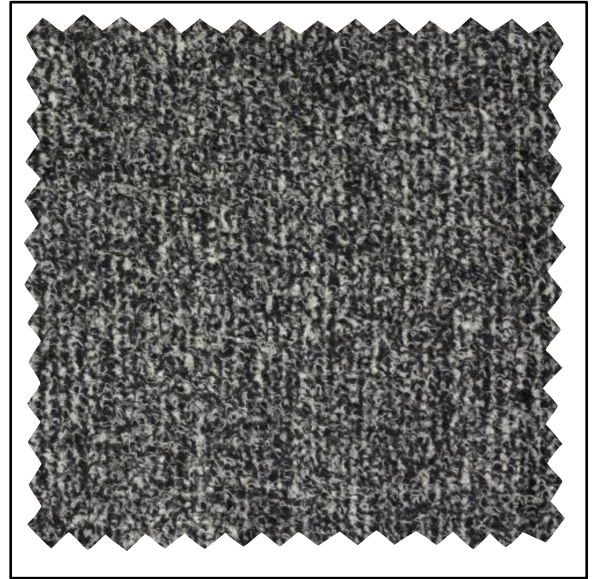


## COTTON MARL RIB KNIT

This cotton marl rib knit is made with white polyester yarn and black cotton yarn. The polyester yarn is a heavier count and when knitted with the finer black cotton yarn it creates this slub effect.



90% Cotton 10% Polyester  
Knit



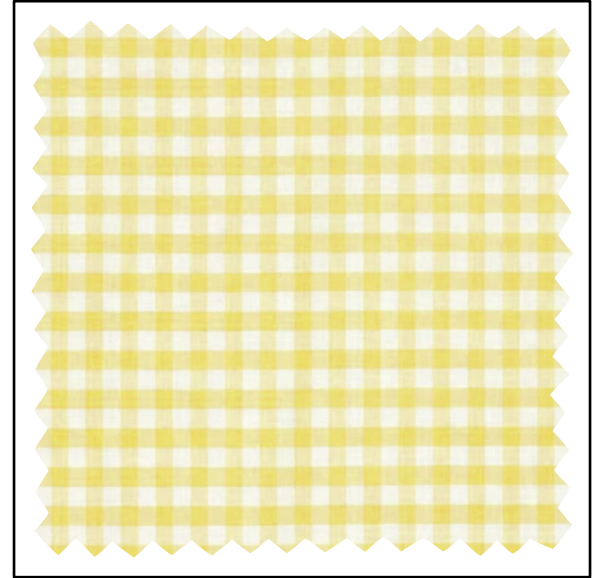


## POLYESTER COTTON

Polyester cottons are hard-wearing and practical with the advantages of both natural and synthetic characteristics. It is perfect for a shirt and similar light-weight tops.



65% Polyester 35% Cotton  
Plain Weave

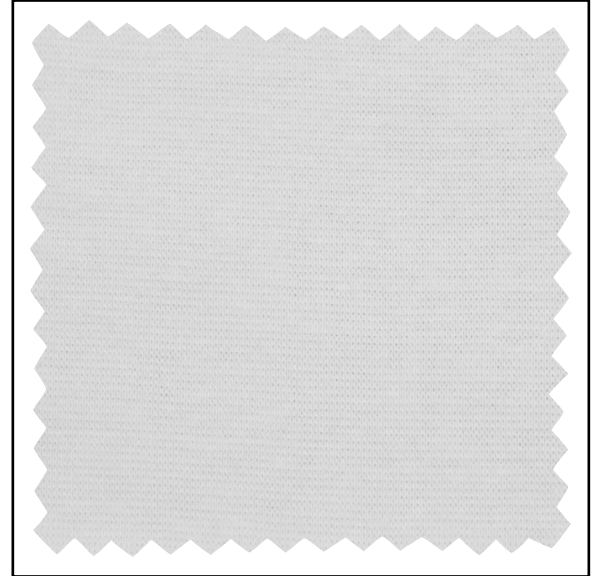


## VISCOSE JERSEY

Viscose, also known as rayon, is an artificial man-made fiber produced from plant cellulose such as wood pulp. It is a sustainable option if it is sourced responsibly and the processing recovers chemicals in a closed loop system.



100% Rayon  
Knit



## **POLYESTER CREPE BACK SATIN**

Polyester satin mimics the aesthetic appeal of silk satin but has a less natural texture. It is more wrinkle resistant, however is not as temperature regulating as silk is.



100% Polyester  
Satin Weave



## SATIN STRIPED WOOL TWEED

A semi synthetic tweed has both the thermal properties and breathability of wool and yet the durability of stretch and comfort of polyester. It is a cheaper option compared to 100% wool or a wool and silk blend.



50% Wool 50% Polyester  
Plain Weave

