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History

ORIGIN

9000BC - 7000BC Humans domesticated sheep but were hairier than woollier so were bread around 60000BC

400BC - 300BC

First woven wool garments started to produce when sheep with more wool came to Europe from the Near East.

DEVELOPMENT THROUGOUT HISTORY



DISCOVERY



The mobility of sheep allowed Per sians, Greeks and Romans to easily distribute and therefore introduce sheep and their wool across Europe. The major exporters were England and Castile (Spain). at that moment.

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Raw wool was put into packages and shipped from North Sea ports to Belgium - specifically to Flanders, Ypres and Ghent -, where it was dyed and worked up as cloth.

In the 16th century, Spain allowed export of Merino lambs, a breed of ship that gives highly valued type of wool, only with royal permission. The German wool market - based on sheep of Spanish origin - did not overtake British wool until later on. Australia's colonial economy was based on their sheep raising, and wool trade eventuaovertook the Germans' llv market by 1845. The great houses of Florence had built their wealtheir textile industry based th on on wool.

"Dyeing and finishing of a woven product had big importance. The manufacturing process of wool was divided into a collection of trades, supervised by an entrepreneur in a system called the "putting-out" system, or "cottage industry". In this system of producing wool cloth, the entrepreneur provides the raw materials and an advance, the remainder is paid upon delivery of the product." (En.wikipedia.org, 2018)



MAJOR EXPORTERS











porter

Right now, Australia is the biggest exof wool with 25% worldwide











It comes from Italy. It was made by an Italian graphic artists called Francesco Saroglia. It was launched in

Woolmark blend: used if a garment is minimum 50% wool Woolblend: used if а garment contains between 30-49% of wool

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WOOLMARK
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- WOOLMARK BLEND
- WOOLBLEND



Manufacturíng Process



Wool is the textile fiber obtained from the fleece of sheep and other animals furnish a wooly fleece which we call wool, but which is sometimes called hair. In which it includes cashmere and mohair from goats, qiviut from muskoxen, angora from rabbits, and other types of wool from camelids.

This fiber of wool is not only produced by the sheep, there are other animals that also produced the fiber with the protein called keratin. Its length usually ranges from 1.5 to 15 inches (3.8 to 38 centimeters) depending on the breed of sheep. Each piece is made up of three essential components: the cuticle, the cortex, and the medula. The manufacture process they used for this fiber is man-made because is distinguish for it natural fibers.

SHEARING

Sheep are sheared once a year—usually in the springtime. The fleece recovered from a sheep can weigh between 6 and 18 pounds; as much as possible, the fleece is kept in one piece. The sheep are shorn using electric shears or sometimes they are sheared by hand. Wool from the legs is short and coarse because of its lower quality, it is separated from the fleece during shearing.

GRANDING AND SORTING

After shearing, the fleece is graded into essentially 4 qualities. In sorting, the wool is broken up into sections of different quality fibers, from different parts of the body. The best quality of wool comes from the shoulders and sides of the sheep and is used for clothing. In wool grading, high quality does not always mean high durability.



CLEANING AND SCOURING

The wool taken directly from the sheep is called "raw" or "grease wool." It contains sand, dirt, grease, and dried sweat (called suint); the weight of contaminants accounts for about 30 to 70 percent of the fleece's total weight. To remove these contaminants, the wool is scoured in a series of alkaline baths containing water, soap, and soda ash or a similar alkali. Rollers in the scouring machines squeeze excess water from the fleece, but the fleece is not allowed to dry completely.

CARDING

The wool is passed through a series of metal teeth that straighten and blend them into slivers. Carding also removes residual dirt and other matter left in the fibers. Carded wool intended for worsted yarn is put through gilling and combing, two procedures that remove short fibers and place the longer fibers parallel to each other. To be used for woolen yarn is sent directly to the spinning. SPINNING

Thread is formed by spinning the fibers together to form one strand of yarn; the strand is spun with two, three, or four other strands. Since the fibers cling and stick to one another, it is fairly easy to join, extend, and spin wool into yarn. Spinning for woolen yarns is typically done on a mule spinning machine, while worsted yarns can be spun on any number of spinning machines. After the yarn is spun, it is wrapped around bobbins, cones, or commercial drums.



WEAVING

Wool manufacturers use two basic weaves: the plain weave and the twill. Woolen yarns are made into fabric using a plain weave (rarely a twill), which produces a fabric of a somewhat looser weave and a soft surface (due to napping) with little or no luster. The napping often conceals flaws in construction. Worsted yarns can create fine fabrics with exquisite patterns using a twill weave. The result is a more tightly woven, smooth fabric. Better constructed, worsteds are more durable than woolens and therefore more costly.



FINISHING

After weaving, both worsteds and woolens undergo a series of finishing procedures including: fulling (immersing the fabric in water to make the fibers interlock); crabbing (permanently setting the interlock); decating (shrink-proofing); and, occasionally, dyeing. Although wool fibers can be dyed before the carding process, dyeing can also be done after the wool has been woven into fabric.

QUALITY

Wool fiber is the natural hair grown on sheep and is composed of protein substance called keratin. The qualities of this fiber that is produced based on the breeding conditions, the weather, food, general care, etc. being provided by sheep and fleece. The classification by sheep are the merino wool that is a sheep originated from Spain yields, class two wool this sheep being originated from Scotland, Ireland and Wales, class three wool comes from a sheep from England, and class four wool is a mongrel sheep referred to a half-breed. The classification by fleece it has a process by which the fleece of a sheep is removed. Sheep are generally shorn of their fleeces in the spring, but the time of shearing varies in different parts of the world. Sheep are not washed before shearing. The classification by fleece is as follows: lamb's wool, hogget wool, wether wool, pulled wool, dead wool, cotty wool, and tag lock.

Characterístics and





APPAREANCE & DURABILITY

FINENESS AND HANDLE

• The very finest Merino wools (less than 16) are designated Super 100's. They are sold at special auctions and are made into extremely fine, soft fabrics.



COMFORT AND DURABILITY

THERMAL INSULATION

- In smooth yarns, the fine wool fibers are tightly constrained so they can scarcely crimp. Fine combed yarns enclose less air and therefore provide less insulation.
- The fibers can develop their crimp inside the yarn and, due to the large amount of entrapped air, offer excellent protection against cold.

FELTING

• Felting is the matting together of fibers, under the influence of mechanical action, heat and water. The effect is utilized for the production of felts but it is a disadvantage in the aftercare of wool clothing.

ELASTICITY

• The fibers have very good extensibility, which is greater when wet than dry. Dripping wet wool garments should be laid flat to dry, to avoid stretching. Elasticity and "springiness" are excellent.

COMFORT & APPAREANCE



NEXT - TO - SKIN COMFORT

• The softness of wool depends on its fineness. Lambswool and fine Merino wool are especially soft. Wools that are coarser than about 30 can irritate the skin.





STRENGTH

• Wool has adequate strength which, nevertheless, is lower than that of most apparel fibers. Textiles made from wool are not particularly durable.

CARE/MAINTENANCE



F L A M M A B I L I T Y

•	Wool		(does	not	burn	easi-		
	ly.	It	is	suitable	for	protective	clothing.		

ELECTROSTATIC CHARGE

Wool fibers develop only small electrostatic charges, because they always contain some moisture which conducts the charge away.

Characterístics and





CARE AND MAINTENANCE AND DURABILITY

MOISTURE ABSORPTION

• It can absorb up to a third of its weight in moisture vapour without feeling wet, and can chemically bind liquid perspiration. Water vapour is absorbed very rapidely, but water droplets are repelled. Liquid water is absorbed only very slowly. Such behavior is called "hydrophobic" Wet wool dries very slowly.

D I S A D V A N T A G E S

- Not enough strength in its yarns. It is not durable.
- It is a heavy material.
- It usually creates small balls of fibers in the garment's surface.
- Wool needs a special care when washing. It takes a long time dry when its soaked.
- It is not durable because of its strength -that it is less-

FORMABILITY

The molecular chains in the wool fiber can be re-oriented under the influence of heat and moisture. In this way, wool fabrics can be more or less durably shaped.

A D V A N T A G E S

- Resists wrinkles with wool springs back quickly after stretching.
- Resists soiling this fiber by forming complex matting.
- Retains its shape, the fibers return to original size after washing.
- Resists flames.
- Wool is durable. Multi-part fibers resist wear and tear.
- Repels moisture.
- Fabric is comfortable in all seasons. It keeps a layer of air next to the skin.

Care Se

01

MACHINE WASH

- Wash wool clothing by hand and in cold water it will make the fiber softer every time is washed.
- Wash inside out so the stains could be removed easily from the garment.
- If you can wash it in a machine, you can wash it with delicate wash. Wool does not resist strong chemicals. If not then it should be cleaned professionally.
- Never bleach a wool garment.



Machine Wash Colo Hand Wash Cold



DRYING

- NEVER HANG WHEN WET! Water adds extra weigh when hanged therefore it stretches down the garment and distorts the shape even more. I Lay it out instead! it is better if you lay it
- out on a towel away from direct heat or sunlight, gently roll it -to remove the excess of water-, and then let it dry flat.

02

FOLDING

 NEVER HANG WHEN DRY EITHER! As said before, hanging does no good to a wool garment. Hangers can create holes and stretch the neckline. I
 Always FOLD IT!







M A I N T E N A N C E

NO BUGS!

Fold the garment in a hermetic plastic bag -wool is protein for certain bugs therefore they might try to crawl their way back into the garment-Then throw in dry lavender -since bugs hate it- and store it in a cool, dry place.

05

NO STAINS

Do not let a stain stay for a long time in your garment. "The longer a stain is allowed to remain on the fabric, the more difficult it is to remove. Immediately soak up the stain with a soft absorbent cloth." (Hermanmiller.com, 2018)



LABELS = IMPORTANT!

ALWAYS

READ

THE

YOUR GARMENT! It is really helpful to maintain it in good shape and clean.

LABEL









OF



CANADA GOOSE MERINO WOOL SWEATER KNITWEAR

UCCICOAT URBAN DAYWEAR

CHILDREN'S WEAR BUCK & BAA PANTS MERINO WOOL CHILDREN'S WEAR

Wool protects from the cold because of its thermal insulation therefore it can keep a person warm. However, it is not suffocating, it is very breathable. Also, wool is partially hydrophobic, soit does not get we teasily, it does not shrink, and it resists organic solvents since they remove stains.

Gucci, Canada Goose and Buck & Baa care for the durability, comfortability, and of course fashionability of a garment as well as other brands. Clearly they decided it would be a great choice to produce the garments above with wool because of what is stated before. Merino wool is especially soft and better for products worn against the skin and for children's wear since it does not

> resists it and only conducts small electrostatic charges. Furthermore, wool stretches.



PRINTED WOOL COAT DOLCE & GABBANA

FELT BOWL HAT FOREVER 21

PLEATED MID-LEN-TH WOOL SKIRT GUCCI WOOL SWEATER WITH PATCH DOLCE & GABBANA

Virgin wool is a great. It is used for specific garments to maintain the heat, comfort and durability. Therefore this wool taken from the lamb by first shering it, which it is the softest, finest wool of the sheep is obtained.

Dolce & Gabbana tailoring, versatility and excellences embellishment creates a garment being 100% natural wool. As also it works with other components like silk, polyester and elastane, giving the details for the appearance for the garments by adding differents prints or jewels. This garments are visually appealing and consider high quality material. Because of the different types of wool that are used and other components is what each designer work with to make their garments high quality material, like Gucci.



- 1. HISTORY
- 2. MANUFACTURING PROCESS
- 3. CHARACTERISTICS & PROPERTIES
- 4. CARE AND MAINTENANCE
- 5. CUSTOMER

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