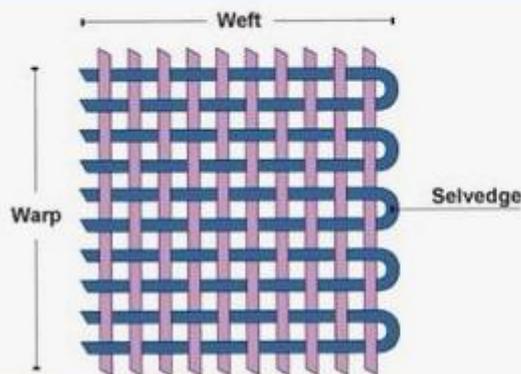


Weaves

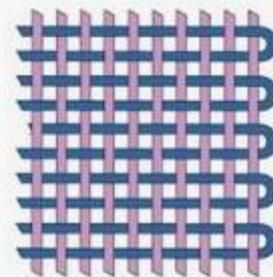
MOST FABRICS ARE MADE BY WEAVING OR KNITTING YARNS, ALTHOUGH NON-WOVEN FABRICS ARE MADE BY BONDING OR FELTING FIBRES TOGETHER. A FABRIC'S APPEARANCE, PROPERTIES AND END USE CAN BE AFFECTED BY THE WAY IT WAS CONSTRUCTED.

WOVEN FABRICS ARE MADE UP OF A WEFT - THE YARN GOING ACROSS THE WIDTH OF THE FABRIC - AND A WARP - THE YARN GOING DOWN THE LENGTH OF THE LOOM. THE SIDE OF THE FABRIC WHERE THE WEFTS ARE DOUBLE-BACKED TO FORM A NON-FRAYING EDGE IS CALLED THE SELVEDGE.



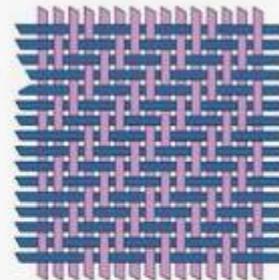
IN PLAIN-WEAVE FABRIC THE WARP AND WEFT ARE ALIGNED SO THAT THEY FORM A SIMPLE CRISS-CROSS PATTERN. PLAIN-WEAVE IS STRONG AND HARDWEARING, SO IT'S USED FOR FASHION AND FURNISHING FABRICS.

Plain - Weave



IN TWILL-WEAVE FABRIC THE CROSSINGS OF WEFT AND WARP ARE OFFSET TO GIVE A DIAGONAL PATTERN ON THE FABRIC SURFACE. IT'S STRONG, DRAPES WELL AND IS USED FOR JEANS, JACKETS AND CURTAINS.

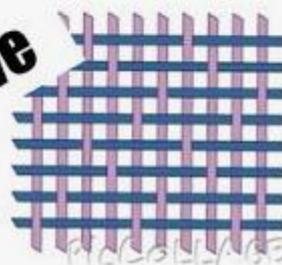
Twill - Weave



IN SATIN-WEAVE FABRIC THERE IS A COMPLEX ARRANGEMENT OF WARP AND WEFT THREADS, WHICH ALLOWS LONGER FLOAT THREADS EITHER ACROSS THE WARP OR THE WEFT. THE LONG FLOATS MEAN THE LIGHT FALLING ON THE YARN DOESN'T SCATTER AND BREAK UP, LIKE ON A PLAIN-WEAVE.

THE REFLECTED LIGHT CREATES A SMOOTH, LUSTROUS (SHINY) SURFACE COMMONLY CALLED SATIN. THE REVERSE SIDE IS INVARIABLY DULL AND NON-SHINY. WEAVE VARIATIONS INCLUDE JACQUARD AND DAMASK.

Satin - Weave



Wash Care codes



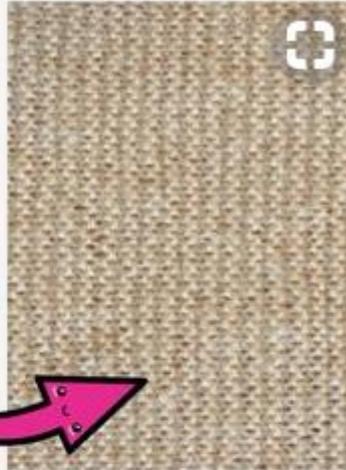
Natural fibres -properties

Natural fibre from an animal

Wool

USED FOR JUMPERS, SUITS AND BLANKETS AND HAS THE FOLLOWING QUALITIES:

- WARM TO WEAR
- ABSORBENT, DRIES SLOWLY
- BREATHABLE, REPELS RAIN
- SOFT OR COARSE HANDLE
- CAN SHRINK, SHOULD BE DRY CLEANED
- GOOD DRAPE
- NOT DURABLE
- CREASES DROP OUT



Natural fibre from an animal

Silk

USED FOR EVENING WEAR AND TIES AND HAS THE FOLLOWING QUALITIES:

- WARM TO WEAR
- ABSORBENT
- SOFT HANDLE
- GOOD LUSTRE AND DRAPE
- DURABLE
- CREASES DROP OUT
- DRY CLEAN



Natural fibre from an animal

Mohair

MOHAIR COMES FROM THE ANGORA GOAT

- MOHAIR DYES BEAUTIFULLY
- IT CAN BE BLENDED WITH WOOL
- THE OLDER THE ANIMAL, THE COARSER THE FIBRE, BUT OLDER MOHAIR IS SO HARD WEARING THAT IT IS IDEAL FOR FLOOR RUGS
- FIBRE FROM YOUNGER ANIMALS IS EXCELLENT FOR SOCKS



Manmade fibre – properties

Synthetic Fibre	Viscose	<p>A REGENERATED FIBRE FROM NATURAL POLYMER MATERIALS LIKE CELLULOSE. IT IS USED FOR SHIRTS, DRESSES AND LININGS AND HAS THE FOLLOWING QUALITIES:</p> <ul style="list-style-type: none">- LOW WARMTH- ABSORBENT, DRIES SLOWLY- SOFT HANDLE- GOOD DRAPE- NOT DURABLE- CREASES EASILY- CAN BE WASHED AND IRONED	
Synthetic Fibre	Nylon	<p>USED FOR ACTIVE SPORTSWEAR, FLEECE JACKETS, SOCKS AND SEAT BELTS AND HAS THE FOLLOWING QUALITIES:</p> <ul style="list-style-type: none">- WARM TO WEAR- ABSORBENT, DRIES SLOWLY- BREATHABLE, REPELS RAIN- SOFT OR COARSE HANDLE- CAN SHRINK, SHOULD BE DRY CLEANED- GOOD DRAPE- DURABLE- CREASES DROP OUT	
Synthetic Fibre	Polyester	<p>USED FOR RAINCOATS, FLEECE JACKETS, CHILDREN'S NIGHTWEAR, MEDICAL TEXTILES AND WORKING CLOTHES AND HAS THE FOLLOWING QUALITIES:</p> <ul style="list-style-type: none">- LOW WARMTH- NON-ABSORBENT, DRIES QUICKLY- SOFT HANDLE- GOOD DRAPE- VERY DURABLE- CREASE RESISTANT- EASY CARE- CAN BE RECYCLED	

Bio degradable fibres – environmentally friendly

BIODEGRADABLE FIBRES



THESE FIBRES CAN BE BROKEN DOWN NATURALLY BY BACTERIA OR LIVING ORGANISMS, THEREFORE FABRICS WILL BREAK DOWN AND DECOMPOSE QUICKLY IN LANDFILL SITES. EXAMPLES OF PLANT BASED FIBRES ARE COTTON FROM SEED PODS OF COTTON PLANT AND LINEN FROM STALKS OF FLAX PLANT.

BIO FIBRES



THESE ARE BIOLOGICAL SOURCES OF FIBRES FROM PLANTS SUCH AS COTTON & FLAX AND ANIMALS SUCH AS WOOL AND SILK. BIOLOGICAL SOURCES ARE RENEWABLE AND SUSTAINABLE. BIO FIBRES DO NOT USE UP ON RENEWABLE RESOURCES.

ORGANIC FIBRES



ORGANIC FIBRES ARE GROWN WITHOUT USING ARTIFICIAL FERTILISERS, PESTICIDES OR HERBICIDES. FARMERS USE NATURAL FERTILISERS SUCH AS MANURE. INSTEAD OF USING HERBICIDES, FARMERS WEED BY HAND. THEY USE NATURAL PESTICIDES SUCH AS SPICES, NATURAL OILS AND SOAP. THESE KEEP PESTS AWAY WITHOUT HARMING OTHER CREATURES.

Fabric finishes

FABRIC FINISHES



FLAME RETARDANCE

FLAME RETARDANT FINISHES ARE CHEMICALS THAT MAKE FABRICS LESS LIKELY TO CATCH FIRE. THEY ARE USED ON FLAMMABLE FIBRES LIKE COTTON. PRODUCTS THEY ARE USED ON INCLUDE WORKWEAR FOR WELDERS, RACING DRIVERS AND SOFT FURNISHINGS. USING A FIRE RETARDANT FINISH, MAKES FABRICS SLIGHTLY STIFFER, FABRIC IS SOFTER AND CHEAPER TO PRODUCE THAN A SYNTHETIC FLAME PROOF FABRIC LIKE NOMEX. HOWEVER SPECIALLY PRODUCED FABRICS LIKE NOMEX DO PROVIDE BETTER PROTECTION.



WATER RESISTANCE

CHEMICALS CAN BE APPLIED TO THE SURFACE OF FABRICS TO STOP WATER DROPLETS PASSING THROUGH. THESE FINISHES DON'T MAKE THE FABRIC WATERPROOF. IF THE SURFACE BECOMES SATURATED THE WATER WILL LEAK THROUGH. FABRICS WITH WATER RESISTANT FINISH CAN BE WASHED AND DRY CLEANED WITHOUT AFFECTING THE PERFORMANCE OF THE FINISH. NYLON IS OFTEN GIVEN A WATER RESISTANT FINISH USED TO MAKE COATS AND TENTS.



STAIN RESISTANCE

FABRICS CAN BE MADE STAIN RESISTANT WITH A FINISH OF A MIXTURE OF SILICONE AND FLUORINE OR A TEFLON COATING. THESE FINISHES STOP GREASE AND DIRT FROM PENETRATING FABRIC. STAIN RESISTANT FINISHES ARE USED A LOT ON CARPETS AND UPHOLSTERY. RECENTLY NANO PARTICLES HAVE BEEN USED TO GIVE IMPROVED STAIN RESISTANCE.

pic collage

Decorative techniques – learn the method

FABRIC DECORATION

EMBROIDERY
Stitch pattern on to the fabric - this can be hand produced or done with an embroidery CNC machine using coloured threads.

TRANSFER PRINTING
Paint, or draw design on to paper. Scan image on to the computer and print on to transfer paper. Then iron on to fabric.

QUILTING
Sandwich wadding between two layers of fabric. Stitch by hand or using a sewing machine.

DIRECT PAINTING
Use fabric paints to work directly on to fabric.

TIE DYEING
Tie, pleat, scrunch or twist cloth before it is dyed. The dye cannot go where the fabric is tied tightly.

BATIK
Paint wax on to the fabric before dyeing. Wax prevents dye getting to the fabric.

APPLIQUE
Cut out shape and sew onto fabric using zig-zag stitch and coloured threads.

BLOCK PRINTING
Cut/carve pattern into the block, roll with ink and press on to the fabric.

Labelling

Textile products maintenance

A CARE LABEL ON A TEXTILE PRODUCT GIVES THE CONSUMER USEFUL INFORMATION ABOUT PRODUCT MAINTENANCE. GOOD LABELS PROVIDE DETAILS ON:

Fibre content

WHICH IS THE PERCENTAGE OF EACH FIBRE USED TO MAKE A FABRIC, EG 50 PERCENT COTTON, 50 PERCENT POLYESTER. THIS IS A LEGAL REQUIREMENT.



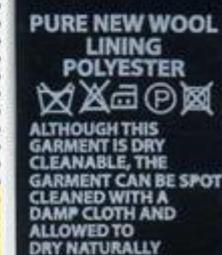
Flammability

THIS IS A LEGAL REQUIREMENT FOR CHILDREN'S NIGHTWEAR.



Standard care symbols

STANDARD SIZE, WHICH IS A STANDARD MEASUREMENT OF THE HUMAN BODY. FOR EXAMPLE, WOMEN'S CLOTHES MIGHT COME IN SIZES 10, 12, 14, 16.

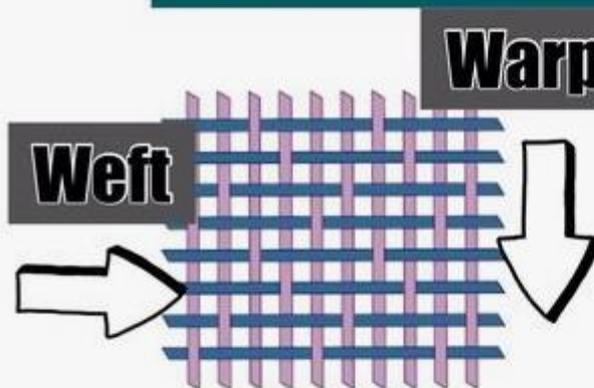


ALL MANUFACTURERS USE SIMILAR SYMBOLS TO TELL THE CONSUMER HOW TO LOOK AFTER THE PRODUCT; THE CARE OF TEXTILE PRODUCTS DEPENDS ON THE FIBRE CONTENT AND FABRIC FINISHES USED.

Satin Weave



SATIN WEAVE



In satin-weave fabric there is a complex arrangement of warp and weft threads, which allows longer float threads either across the warp or the weft. The long floats mean the light falling on the yarn doesn't scatter and break up, like on a plain-weave. The reflected light creates a smooth, lustrous (shiny) surface commonly called satin. The reverse side is invariably dull and non-shiny. Weave variations include jacquard and damask.



- The main characteristics of satin weave is that; the face side of the fabric is very smooth and glossy.
- Only one interlacement is happened between each warp and each weft, for this reason, it is very glossy.
- In satin weave, no twill direction is formed on the fabric surface.
- Satin weave is comparatively looser structure than plain and twill weave.
- Satin weave is mostly used for lace production.

Non woven fabrics

