

FABRIC FINISHES AND APPLIED DESIGNS

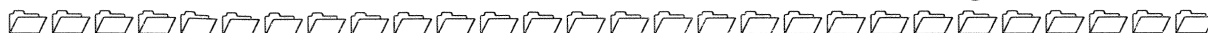
TEXTURE FINISHES

Many designs or finishes are applied to fabric surfaces by methods other than dyeing or printing. These methods generally involve the use of a chemical finish, a mechanical finish, or both. Most of these finishes are used only on woven fabrics and create a change in the texture of the surface and hand of the fabric.

Examples of these special texture finishes include:

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| Napping | Using rotating wire brushes to raise the short fiber ends to create a soft, fuzzy surface. |
| Calendaring | Passing a fabric between two heated rollers to smooth the fabric and improve the luster. |
| Lustering | Treating a fabric with heat and pressure to add luster. |
| Glazing | Applying a resin to produce a high polish or glaze on the surface of the fabric. |
| Delustering | Treating the fibers or fabrics with chemicals to reduce their gloss. |
| Beetling | Flattening cotton or linen fabrics to fill out the weave and add luster. |
| Sizing | Adding starches or resins to the fabric for extra body or crispness. A temporary finish. |
| Crisp Finish | Adding a treatment to the fabric so that it stays crisp and starched looking through wear, laundering, and dry cleaning. |
| Embossing | Giving fabrics a raised design on the surface with rollers engraved with the design. |
| Ciré | Giving a super glossy finish to fabric by applying wax or some other substance before calendaring. |
| Moiré | Giving a watered or wavy pattern by calendaring two layers of fabric slightly off-grain. |

Source: Clothing; Weber, Jeanette; Glencoe Publishing Co., Peoria, IL; 1990; pg. 201.



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PERFORMANCE FINISHES

Finishes are often applied to fabric surfaces to achieve a particular performance from the fabric. The end use of the fabric is identified, and finishes are applied to meet specific needs for the product. They affect the life of the product as well how the fabric performs. These finishes may be applied to the fabric before being sewn into a garment, or they may be applied to the finished garment.

Examples of these special texture finishes include:

- Durable Press/
Wash and Wear Helps fabric resist wrinkling and require little or no ironing.
- Crease Resistant/
Wrinkle Resistant Helps fabric resist wrinkling and recover more rapidly from wrinkling caused by normal wear.
- Stain/Spot/Soil
Resistant Helps fabric repel stain and/or makes it easier to remove stains.
- Water Repellent Helps fabric resist water, although eventually it will become wet. Not a permanent finish.
- Waterproof Coating fabric so that no water will penetrate the fibers. Makes the fabric non-porous.
- Shrinkage-
Controlled Guarantees shrinkage should only be minimal, even after many launderings.
- Antibacterial Checks the growth of bacteria and perspiration odors.
- Flame Retardant Helps reduce flaming and burning of fabric exposed to a flame or high heat.
- Mildew Resistant Resists the growth of mildew and other molds.
- Moth Resistant Repels moths and other fiber-eating insects.
- Antistatic Helps prevent fabric from clinging and building up static electricity.
- Absorbent Makes the fabric absorb moisture more easily and thus becomes more comfortable to wear.

Source: Clothing; Weber, Jeanette; Glencoe Publishing Co., Peoria, IL; 1990; pp. 202-203.



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FABRIC PRINTING

Fabrics can be printed in a variety of ways. Printing involves transferring color to the surface of a fabric. Some printing methods are very old techniques that are still used by crafts people today. However, the textile industry uses high-speed electronic machines for textile printing. Some specialty fabrics, such as scarves and evening gowns, may be printed by hand.

Some of the various methods of printing fabrics that are commonly used are discussed below.

Roller Printing

The roller printing press contains circular rollers, or printing plates, for each color of the desired design. Each roller is chemically etched with its colored part of the pattern, leaving high and low areas on the rollers. The raised sections of the roller pick up the desired color. The fabric is printed as it passes through the press and makes contact with the raised sections of each roller. The different areas of color will coincide to form the completed design.

Two variations of roller printing include discharge printing and resist printing.

In **discharge printing**, some of the dye is bleached or chemically removed to create a white design on a colored fabric.

In **resist printing**, the fabric is printed using a dye-resistant chemical. Then the fabric is dyed. The printed area resists the dye and remains uncolored.

Screen Printing

A fabric or metal mesh screen is stretched on a frame. The design is traced onto the screen. Then all the areas not included in the design to be printed are blocked out with a special coating. The color is then pressed through the screen onto the fabric, using a squeegee or roller. A separate screen is used for each color of the design. Large designs, such as those often used in home furnishings fabrics, can be printed using this method.

Rotary Screen Printing

This method combines the advantages of roller printing and screen printing. The rotary screens, made from metal foil, are less costly than the printing plates. It is a faster method than flat screen printing.

Transfer Printing

This is a popular method for transferring designs, insignias, and words onto fabric. The design is printed in reverse with heat sensitive dyes on paper. When the paper pattern is placed face down on the fabric and heat is applied, the design is transferred to the fabric.

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This is a method that is similar to using a rubber stamp. A design is carved on a block. The first blocks were made from clay, but today they can also be made from wood, linoleum, or metal. The block is covered with dye and pressed on the fabric so that the design is transferred from the block to the fabric.

Painting

Painting on fabric is similar to painting on any other surface. The color can be applied with a brush, a pen, or a marker. Hand-painted silk is used for very expensive garments. Designs are also painted on T-shirts, sweatshirts, canvas bags, and umbrellas.

Batik Printing

Batik printing is created by first applying hot wax to the areas of the fabric that will not be dyed. The fabric is then dipped into a dye and left to dry. New wax can be applied to other areas before the fabric is dipped into another color. Batik fabric can have elaborate designs by applying different layers of wax and dye.

Tie Dyeing

Tie dyeing is a very old method. The fabric is tightly tied in certain places, then dipped into the dye. The dye will not penetrate in the spots where the fabric is tied. The fabric can be retied and dipped in a different color of dye.

Source: Clothing; Weber, Jeanette; Glencoe Publishing Co., Peoria, IL; 1990; pp.109-110, 198-201.