

## Acrylic Fabrics

Acrylic fiber is thermoplastic (heat sensitive) similar to polyester and nylon, but is even more heat sensitive. Acrylic, because of its heat sensitivity, can be closely made to resemble wool, due to its high bulking power. In manufacture, stretched high shrinking fiber are blended in a yarn with unstretched low shrinkage fibers...

When the yarn is subjected to steam the stretched high shrinkage fibers cause the low shrinkage fibers to buckle, thus creating bulk in the yarn. Acrylic fiber is extremely versatile and its look and hand changes depending upon the bulking of the yarn and how it is spun. Acrylic is popularly blended with wool but can be blended with other fibers, including chenille. Acrylic is used in both dress up and sports attire. Acrylic fibers is used in both men's and women's sweaters. Hand knitted sweaters are often knitted with acrylic yarn. Women's dresses, skirts, suits and jackets are commonly blended with acrylic fibers. Acrylic is also found in household fabrics including blankets, draperies and slip covers.

**FABRIC PROBLEMS** Acrylic fiber is more heat sensitive than other thermoplastic fibers. This means that acrylics cannot be given a "permanent" heat setting like that of nylon and polyester. This may be an advantage or disadvantage to the consumer. It means that pleats, creases, hem marks, etc., can be removed if desired. It also means that the garment has poor dimensional stability causing either stretching or shrinkage. It also means that intricate fluting and pleating is easily removed. This can occur during wear, drycleaning, wetcleaning or finishing. Like fabrics made of other thermoplastic fibers, acrylics:

- form pills or balls on the fabric surface because the broken fiber clings tenaciously
- build up static electricity when the surfaces are rubbed during wear or drycleaning. The build up of static electricity attracts lint and soil particles which show up as dingy redeposition
- glaze, fuse and discolor when subjected to excessive temperatures
- when acrylic yarns are knitted into a heavy, loose knit construction, there is an increase in the possibility of stretching and distortion; and acrylic knit fabrics cut on the bias will distort more easily in normal wear or subsequent drycleaning finishing.
- Hand made hand knitted sweaters using acrylic yarn are always susceptible to distortion. It is important to identify this before blocking is attempted.
- The soft surface texture of acrylic chenille sweaters can be distorted.

**IDENTIFICATION** Acrylic yarns can have various trade names, such as acrilan, orlon and creslan. Acrylic fiber can be identified by the burn test. The burn test is often used to differentiate a wool fabric from an acrylic fabric. Where there is a seam edge, snip a small piece for a sample. Where there is no seam edge, pick off enough nap to roll between the fingers. Bring a lighted match to the sample. Wool will sizzle and has an odor of burning feathers, Acrylics will melt into a black bead which is difficult to break.

**INSPECTION** Inspect acrylic knits when receiving them for distortion, stretching and snagging. (Examine acrylic knitwear for stretching or distortion by lining up waist and comparing hemline.) Examine acrylic chenille sweaters for pile distortion and pulled yarns. Also examine areas of wear for pilling, such as sleeves, collar, waist and seat. These conditions can seldom be corrected and should be noted on the sales slip at the time of receiving.

**DRYCLEANING** Close zippers and button acrylic knit garments before placing them in a net bag. Classify by color and run in a soft wool type load with no moisture. Run 3-5 minutes of drycleaning with solvent temperature of 75-80 degrees F. Immediately remove from the reclaimer (no higher than 140 degrees F) and fold over the bar of a hanger. Do not hang acrylic knitwear by the shoulders like other garments. The garment may stretch and become permanently distorted.

**SPOTTING** Keep the steam gun between six to eight inches from acrylic knits to avoid glazing, fusing and distortion. Avoid steam gun on chenille knit acrylic fabrics. Minimize mechanical action by tamping rather than brushing to avoid snagging, chafing and distortion. When brushing, angle the brush so the outer edge of the bristle is used. This reduces mechanical action on the fabric. Most wet and dryside chemicals can be used on acrylic fabrics. Avoid dryside agents when acrylic fabric is pigment or surface printed.

**WET CLEANING** Place loose knits in a net bag. Agitate by hand or on a gentle cycle. When drying, hangover the bars of two hangers to avoid the weight of fabric causing stretching. Lay flat to dry.

**FINISHING** Most acrylic bulky sweaters do not require very much finishing. When removing wrinkle on acrylics, steam lightly and only move the garment when totally vacuumed and dried. Never use head pressure or hot irons on acrylics. Avoid steam air finishers and steam tunnels.

**CORRECTION PROCEDURE** Stretching and distortion cannot be corrected. If acrylic knit has shrunk, it may be corrected by placing on buck of press, steaming lightly and gently pulling the fabric evenly in the same direction on all areas of the garment. Pilling (tiny balls) can sometimes be corrected by the use of a pumice stone or safety razor.

**SUMMARY** Acrylic fabrics require more care than other thermoplastic fabrics due to its heat sensitivity. Stretching during wear is a common complaint with consumers on acrylic knit fabrics. Acrylics can stretch, shrink and easily lose pleats and fluting during wear, drycleaning, wetcleaning and finishing. Proper inspection is required to avoid being blamed for damages occurring during wear. .