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THE WRINKLE FREE PROCESS

THERE ARE TWO PROCESSES CLASSIFIED AS WRINKLE FREE:

1. Fabric treatment
2. Garment treatment

Wrinkle Free characteristics of cotton or cotton blend fabrics and garments are imparted through the application of chemical finishes to the fabrics or garments. The two processes are described below:

1. FABRIC FINISHES:

A. PRE-CURE: The finish is applied by the textile mill and the fabric is set or cured in a flat state.

Benefits: Fabric smoothness and dimensional stability. Most economical process.

Drawbacks: No permanent crease and does not help control seam puckering.

Whenever a permanent crease is not required, pre-curing is the preferred and most economical method to achieve required fabric smoothness.

B. POST-CURE: The finish is applied but left uncured by the mill. After the garment has been made and pressed, curing or setting of the finish takes place at a finishing facility.

Benefits: Fabric smoothness, shrinkage, crease retention and minimized seam puckering.

Drawbacks: Risk for premature setting or pre-curing while fabric is in transit or stored before garment manufacturing, potentially resulting in permanent wrinkles or in poor crease retention after garments are pressed and cured.

C. DURAPRESS: 100% polyester or polyester blends. Fabrics that maintain crease and/or smoothness without added resins.

Benefits: Non-cured fabric; smoothness; dimensional stability; crease retention and minimized seam puckering.

Drawbacks: Shine; impressions; moiré.

2. GARMENT FINISHES:

Garment finishing is a form of post-curing where the resins are applied to the garment by the garment manufacturer.

Benefit: Fabric smoothness, shrinkage, crease retention and minimized seam puckering.

The sewing plant handles unfinished fabric. No risk for premature setting of wrinkles in post-cure fabric.

Drawbacks: Process control more difficult.

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THERE ARE CURRENTLY TWO TYPES OF GARMENT FINISHING:

1. IMMERSION

This finish is applied by immersing the garment after which it is extracted, dried, pressed and finally cured.

2. VAPOR PHASE

Finish is applied in gaseous form after the garment has been pressed. This is a patented process which has had limited success in the U.S. but has recently been licensed by three textile mills in Japan for sublicensing to their customers

GENERAL CHARACTERISTICS:

While the Wrinkle Free finishes all provide several desirable consumers product benefits, they have the drawback of reducing the strength of cotton. In the early days of post-curing, polyester was introduced in fabric blends to compensate for the strength loss. In addition, the heat setting characteristics of polyester contributed to permanent press performance. Chemical finishes have since been improved.

To meet requirements, lower levels of chemical finish can be applied to 100% cotton fabrics and garments to impart satisfactory wrinkle free performance while maintaining sufficient strength.

In terms of general cleaning, a pre-cured product can be cleaned throughout the process. Immersion product can be cleaned until after the resin is added and then not again until after the curing process.

Post-cure cannot be cleaned until after curing.

Durapress can be cleaned at any time throughout the process.

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