



## Embellishing Polyester Performance Fabrics

### Printing

#### Challenges with printing on polyester

Whenever possible, sample the design with a pre-production sample to ensure the quality and performance of the garment and decorating materials. This may include washing some samples after printing to check on durability and adherence.

Monitor and maintain your dryer's temperature daily to ensure that the oven is doing its job correctly. Proper temperature is critical for curing inks as well as avoiding damaged garments.

Never switch from 100% cotton production to polyester or poly/cotton production without re-configuring the entire printing process.

#### Heat Sensitivity

Polyester fabrics are more sensitive to heat than cotton fabrics. Cotton products tend to shrink after being washed and dried, where polyester products are prone to shrink when subjected to extreme heat. To properly screen print on polyester it is important to control and manage your heat during the curing process. Too much heat can damage a garment in several ways.

Issues can include excessive shrinkage, dye migration and scorching. Many of the printing inks on the market today have been formulated to cure at temperatures between 280-330 degrees F. Exposing polyester products to temperatures higher than this puts them at risk of experiencing the quality issues mentioned above.

It's best to test and monitor the surface temperature of the garments being cured with a thermo-probe, as well as follow the print parameters set by the ink manufacturer.

#### Dye Migration

Temperatures needed to cure screen printing inks or apply heat transfers may also convert some of the dyes in the polyester into a gas. If this occurs, the polyester dyes could permeate into the ink or transfer and change its original shade. To avoid this, it is highly recommended to use inks or transfers that are bleed resistant.

Dye migration can be apparent almost instantly or could take several hours to manifest. It's advisable to wait 24 hours before shipping a finished product if you are unfamiliar with the garment, inks or transfers.