



Embellishing Polyester Performance Fabrics

EMBROIDERY

Polyester performance apparel can be embroidered just as easily as cotton apparel with just a few minor adjustments in equipment or processes.

Needle

Using a ball point needle will help to avoid cutting the fabric when running an embroidery logo. Also consider using a 70/10 needle when running on lighter weight performance fabrics.

Thread

Polyester and Rayon threads are both fine to use, but a Rayon thread may actually look and feel a little better on the lighter weight fabrics due to its softer hand. Regardless of which type of thread used, a #40 thread is probably best when used with the 70/10 needles.

Backing

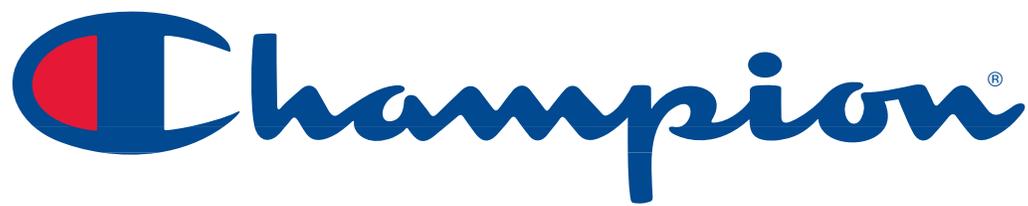
Stick with backings that are lighter than 2.0 oz. Tear away and cut away backings are both good, but always cut away the backing when cleaning up the logo. Pulling on the backing to remove it may lead to stretching or distorting some lighter weight fabrics.

Stitch Density

Too many stitches in a logo intended for performance apparel could result in puckering and even needle cuts. Reduce the overall stitch density and focus more on the underlay. Proper underlay coverage will help with stability as well as help with coverage when reducing the density of the step fill or satin stitch.

Hooping

Hooping performance apparel too tightly may result in hoop burns, damaged fabric, or puckering in the embroidery. Hoop the garment just tight enough to stay within the hoop when being embellished without forcing the garment into the hoop. Also, do not try to adjust the fabric after it has already been hooped.



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.

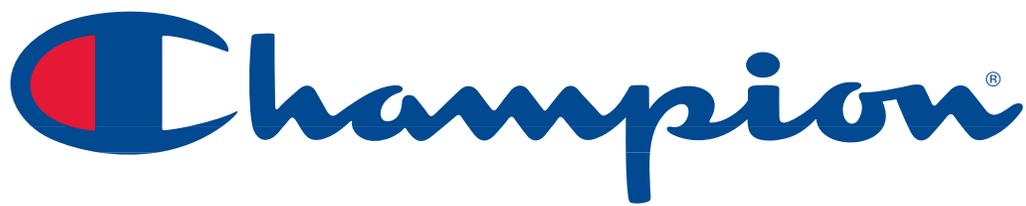
Issues can include excessive shrinkage, dye migration and scorching. Many of the printing inks on the market today have been formulated to cure at temperatures between 280-330 degrees F. Exposing polyester products to temperatures higher than this puts them at risk of experiencing the quality issues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



Embellishing Polyester Performance Fabrics

SUBLIMATION

Procedure

- Calibrate equipment: make sure machines settings, start up as suggested and press do not exceed temperatures recommended above.
- The template board attached to the table is clean and free of marks.
- Garment is inserted properly.
- Pads (02) must be exactly art size to be transferred and place underneath area to be transferred.
- No additional paper on top of garments or cushion underneath are added to the process.
- Proceed transferring & removal of printed paper immediately.

Double Dry® Interlock Jersey Products

	Temperature	Dwell Time	Pressure	Pads
Suggested Settings	385F	20s - 25s	30lbs/psi	02 No max
Do Not Exceed	400F	30s	60lbs/psi	

*** No Max -- are the thermal pads

Disclaimers

- Sublimation results will depend mainly on: quality of printed-paper used, temperature (heat), pressure, dwell time, humidity and other environmental conditions.
- Improper machine set up will result on garment damage such as: fabric scorching & undesirable effects such as ghosting, among others.
- Due to manufacturing companies of all nationalities on the market, equipment & calibrations are subject to variances, being virtually impossible to provide exactly settings.
- Settings above recommended based on trials in observance of our fabric weights & other specifics characteristics