

Ink Turning Pink?

Temperature & Screen Printing Performance Fabrics

Performance fabrics are growing in use and present specific challenges to the screen printer. These are the same issues that you experience when printing on 100% polyester and often polyester blends like 50/50 as well. [Paper Thermometer Thermolabels®](#) can help you avoid costly headaches when working with these textiles.

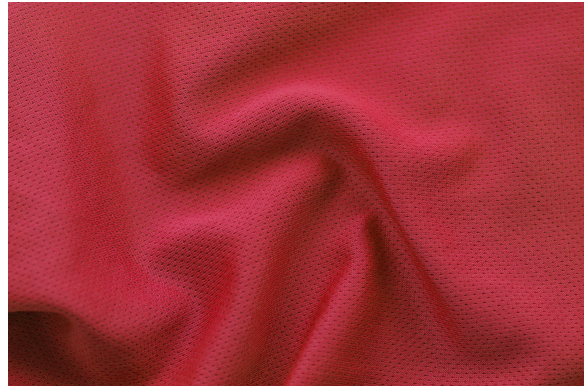
Common issues:

- Dye migration – color from the fabric bleeding into the print, typically an issue with light prints on red or navy but found in any light ink on dark or bright fabrics
- Fabric buckling, melting, scorching, puckering or wrinkling

Temperature is a factor in these issues. Luckily, Paper Thermometer [Thermolabels®](#) will help you keep your curing temperature right where you need it to avoid these problems.

Some solutions:

- Use a low bleed white or gray blocker (underbase)
- Use low cure inks formulated specifically for polyester
- Adding low cure additive to standard plastisol
- Keep your curing temperature at the low end of the temperature range for your ink
- Low and slow - low heat, slow speed
- Thin ink deposit at higher speed



Whatever the solution combination that works for you; use [Thermolabels®](#) to dial in and maintain your desired curing temperature.

Dyes in polyester fabrics migrate at lower temperatures than in other fabrics causing lighter inks to take on the color of the fabric. When printing on polyester or performance material, curing temperature should be no higher than 310°F, ideally around 290°F. Because this curing temperature is lower than for standard plastisol ink, polyester specific ink is needed. By keeping the temperature at this level, dye sublimation will be minimized. Dyes in the polyester fabric start to sublimate at about 265°F. For this reason, even though the curing temperature is being kept low to minimize dye migration, a low-bleed gray or white blocker should also be used to fully prevent dye migration. These same guidelines are true when flashing a garment. Flash at below 320°F to limit the dye sublimation in the fabric.

Something to keep in mind, the issue might not show up until a couple of days after printing. That white could look fine as it leaves your dryer but turn pink once in your customers hands. Not good.



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PF250	PF250	PF250	PF250	PF250	PF250	PF250	PF250
@ 250°F 121°C	@ 250°F 121°C	@ 250°F 121°C	@ 250°F 121°C	@ 250°F 121°C	@ 250°F 121°C	@ 250°F 121°C	@ 250°F 121°C
260°F 127°C	260°F 127°C	260°F 127°C	260°F 127°C	260°F 127°C	260°F 127°C	260°F 127°C	260°F 127°C
270°F 132°C	270°F 132°C	270°F 132°C	270°F 132°C	270°F 132°C	270°F 132°C	270°F 132°C	270°F 132°C
280°F 138°C	280°F 138°C	280°F 138°C	280°F 138°C	280°F 138°C	280°F 138°C	280°F 138°C	280°F 138°C
290°F 143°C	290°F 143°C	290°F 143°C	290°F 143°C	290°F 143°C	290°F 143°C	290°F 143°C	290°F 143°C

The most common Thermolabel® used for screen printing is the [TL5-5C 290-330°F](#) temp sticker. Performance garments often require printing with a low curing ink; our [PF250 250-290°F Performance Fabric Thermolabel®](#) was developed specifically for this use. The [TL5-4C 240-280°F](#) Thermolabel® and the [8-Temp TL8-250C 250-320°F](#) are other good options for adjusting and verifying the temperature that polyester shirts are drying at. Check your temperature often and adjust when needed.

Paper Thermometer Co has temperature labels for curing ovens and heat presses for use with screen printing textiles, inks and transfers of all types. Select a product for the temperature range you need and [request a sample today](#).