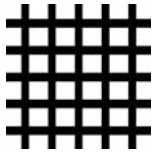


TECHNICAL DATA SHEET

SHORT DESCRIPTION:

Relief Black and Relief White are low bleed inks with a flexible cure window of 270°F-320°F. They are designed to work with both high and low cure ink color lines. These inks are very creamy and have excellent opacity.

QUICK SPECIFICATIONS:



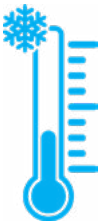
MESH COUNT
86 to 110

This is simply a recommendation based on printing difficult fabrics such as 100% polyester. Preventing dye migration requires a generous ink deposit. However, Relief Series inks will print through finer mesh with ease.



FLASH CURE
5/5: **Exceptional**

The rating of **EXCEPTIONAL** implies a flash cure speed of approximately half that of any standard plastisol ink. Due to the great number of variables involved, we cannot specify a specific flash time or temperature.



INK CURING
270°F to 320°F

Washing and drying your prints to check durability is the ultimate test of ink curing. However, the use of Thermolabels is the most sensible method of testing for your day-to-day operations. This will help you prevent cracking, peeling, and washout.



SQUEEGEES
70 Durometer

Squeegees are one of many variables controlling your ink deposit. Softer squeegees are capable of printing thicker while hard squeegees allow for better print resolution. 60 durometer is soft. 70 durometer is medium. 80 durometer is hard.



CLEAN UP
PW-4 or IR-26

Many cleaning products will remove plastisol ink. We recommend Saatichem PW-4 for cleaning on-press. The IR-26 is ideal when cleaning in a washout booth. Cleaning the ink out of the screen immediately after printing is always recommended.



TECHNICAL DATA SHEET

LOW TEMPERATURE BENEFITS:

Low temperature inks help prevent numerous fabric/printing problems which have become such a nuisance. These problems include:

Dye Migration

Polyester dyes turn into gas when they are heated. Since you are using a significant amount of heat to fully cure plastisol ink, this will always be a problem. With low temperature ink, you are using much less heat, preventing polyester dyes from migrating.

Ghosting

100% polyester, fluorescent tees, pigment-dyed tees, and “vintage” apparel may experience what we call ghosting. This appears to be a haze around the print. You may also see a ghost image of the print on through the back (or front) of the garment. This can be caused by both heat and chemistry. Low temperature inks will prevent ghosting.

Shrinking

Fabric shrinking can happen while flash curing or fully curing in the conveyor dryer. This can be a huge problem either way. If your fabric shrinks under a flash unit, the colors will no longer register properly. Shrinking in the conveyor dryer may not be a big deal unless it is significant. We have seen polyester hooded sweatshirts shrink more than four inches in the dryer. Low temperature ink is an excellent solution for all shrinking fabrics.

Scorching/Melting

Fabrics will burn, leaving dark or even charred burn marks on your apparel. This can happen while flash curing or fully curing in the conveyor dryer. Excessive heat is the culprit. However, items such as polypropylene and nylon may scorch at significantly lower temperatures when compared to cotton and poly/cotton. Our low temperature inks will fully cure cool enough to prevent these problems.

Color-Changing

Fluorescent cotton and poly/cotton fabrics have a tendency of darkening when over-heated. This is not always easy to see as the color change is often slight. It most commonly occurs on safety yellow, fluorescent green, and fluorescent orange tees. Any part of the shirt which is not flat on the belt is likely to be a different color once it is heated. Low temperature ink will allow you to keep the temperature at a safe level.



TECHNICAL DATA SHEET

RELIEF SERIES BENEFITS:

- Universal ink for printing virtually any fabrics.
- Super-soft / stretchy feel.
- Good for screen printing spandex and lycra blends.
- Opaque formula for printing dark fabrics without a white underbase.
- Bleed resistance is very high for printing 100% polyester tees and uniforms.
- ELT Digital Black Underbase is recommended for printing sublimated polyester and digital camos.

IDEAL CURING GUIDELINES:

Curing Relief Series at the temperatures listed below (measure with a Thermolabel) will give you the best possible print without damaging the fabric. Curing is a time and temperature process. A lower temperature with a slower belt speed is always the best method.

100% Cotton	Poly/Cotton	Polyester	Nylon/Stretch	100% Nylon
270°F	270°F	270°F*	270°F	270°F*

TIPS & TRICKS:

- For 100% polyester fuzzy tees, print with ELT-S Black Underbase. This will increase the ink deposit and lay down some of the tougher fibers.
- Relief Series inks flash extremely fast. If you are printing manually with multiple stations, adjust the flash unit to be cooler or further from the print to protect the fabric.
- Relief Series can be cured successfully at regular temperatures (320°F). However, this will slightly decrease your bleed resistance and risk temperature related fabric problems.
- Thin ink deposits will not stretch very far without cracking. For the most stretchy fabrics, be sure to print enough ink to be durable.

Always perform a pretest print and test cure conditions on the fabric to be printed to establish the best results. Stir inks vigorously before each use. Viscosity may need adjusting for best results. If there is ever a question about a print job, call us at 800-942-4447. We are always happy to help!