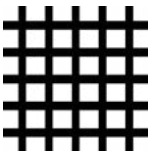
ELT DIGITAL BLACK UNDERBASE

TECHNICAL DATA SHEET

SHORT DESCRIPTION:

ELT Digital Black Underbase is the only solution for screen printing sublimated polyester such as digital camo tees. This dye-blocking ink also removes any fear of dye migration on solid 100% polyester tees and uniforms if you choose to use it in these situations.

QUICK SPECIFICATIONS:

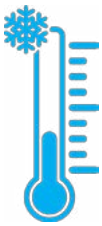


MESH COUNT
86 to 110

You must not print ELT Digital Black Underbase through fine mesh counts. This ink will not stop dye migration unless you print through 110 count mesh or lower. Printing through mesh counts lower than 86 is acceptable but not necessary.

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.

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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, flourescent 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 conveyer 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.

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ELT DIGITAL BLACK UNDERBASE BENEFITS:

- Our most bleed resistant ink for printing polyester and sublimated polyester.
- Holds down the “fuzz” better than any other ink.
- Print at low or high temperatures with great results (see Tips and Tricks for acceptable overprint inks).
- Flash cures extremely fast.
- Matte finish.
- Prints easily on manual or automatic equipment.

IDEAL CURING GUIDELINES:

Always measure the cure temperature with a Thermolabel. The first temperature listed is for curing one print of ELT Digital Black Underbase and one print of ELT White/color on top. The second temperature is for two prints of each ink. Curing thick prints requires more heat.

100% Cotton	Poly/Cotton	Polyester	Nylon/Stretch	100% Nylon	Polypropylene	Rayon
270°F/300°F	270°F/300°F	270°F/300°F*	270°F/300°F	270°F/300°F	270°F	270°F

*Sublimated polyester such as digital camo often requires two prints of ELT Digital Black Underbase and two prints of ELT White/color to be 100% acceptable. Solid polyester may be printed with only one print of ELT Digital Black Underbase.

TIPS AND TRICKS:

- Print-flash-print ELT Digital Black Underbase for the most bleed resistant print. The more ink, the better it will be at fighting dye migration.
- ELT Digital Black Underbase can be printed at regular temperatures (320°F to 330°F) with great results. You must overprint one of the bleed resistant inks listed below.
- Acceptable overprint inks: .357 White, Bravo White, Bravo Flex Series, Smart Series, Production Series, Pure Plus White, Pure Plus Flex White, Athletic Plus Series.
- ELT Digital Black Underbase is the best option for 100% polyester tees which feel and look like cotton. Nothing else can hold down the “fuzz” on these tees.

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!