



Technical Data Sheet

ULT SHIELD GREY

Non-Phthalate

Description: ULT SHIELD GREY is a non-phthalate, lead free, High Opacity, high performance grey dye blocker. Shield your customers from unwanted dye migration from poorly dyed polyester, blends, comfort colors, as well as dye sublimated products. ULT Shield Grey can take a variety of top coats, from low temperature cure products, to standard cure temperature products. When you use ULT Shield Grey with Yeti ULT II White, you truly have a shield against dye migration and bleed.

Substrate: 100% Polyester Performance fabrics. Tri-blends, Polyester Blends, Cotton, Nylon, Stretch fabric, and lycra/spandex blends.
*Not suitable for all nylon substrates, pretest prior to production.

- Features:**
- Creamy plastisol ink
 - Smooth Athletic Finish
 - Fast Flash
 - Low after flash tack
 - Superior Bleed Resistance

Physical Properties:	Wet Ink Tack	Low
	Surface Appearance	Satin Finish
	Bleed Resistance	Superior
	Opacity	High
	Gel point	160 °F
	Flash Temp & Time	220° - 240°F
	Fusion Temp	270°F - 300°F
	Squeegee Blade	70° - 80° durometer
	Mesh Count	86 – 160 mc in

Performance: Print ULT Shield Grey straight from the container through mesh ranging from 86 to 160 mc without modifications of the viscosity. Stir before use.

Storage and Handling: 65°F to 90°F avoid direct sunlight. **Never exceed temperatures above 95°F during storage.**



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Recommendations: Stir plastisol ink before printing. DO NOT add modifiers or additives to ULT Shield Grey, as that can affect the bleed resistance, opacity, or increase cure times. Any contamination from other ink sources could make the ink test positive for restricted phthalates and reduce bleed resistance.

Perform fusion tests before production. Failure to cure ink properly can result in poor wash fastness, inferior adhesion, and unacceptable durability.

Adjust flash cure temperature and dwell time so ink is just dry to touch. Avoid excessive flash temperatures to protect fabric and migration of dyes. If surface is hot and tacky, the ink film has been over flashed. Reduce temperature or time to prevent an inter-coat adhesion problem.

Curing is a time and temperature process, a lower oven temperature setting with a slower belt speed while maintaining recommended ink cure temperature is always best to protect fabric, control dye migration and reduce energy consumption.

It is important that topcoat be exactly registered with ULT Shield Grey. If top coat is not exactly registered with ULT Shield Grey, dye migration can happen in areas without ULT Shield Grey under it.

Monarch ULT Shield Grey can be cured between 270°F - 300°F. Running at the higher end of the temperature range and/or longer dwell times maybe required to achieve proper cure on jobs that contain cotton, high ink deposits or heavy weight garments.

Monarch Color does not knowingly add plasticizers containing the phthalates listed and outlined in California Bill 1108, CPSC HR-4040 and Oeko-tex Standard 100. The plasticizers identified may include di-(2-ethylhexyl) phthalate (DEHP), dibutyl phthalate (DBP) benzyl butyl phthalate (BBP), diisononyl phthalate (DINP), diisodecyl phthalate (DIDP), di-n-octyl phthalate (DnOP), (DIBP), Di-iso-butyl, and (DMP) Dimethylphthalate, including esters of ortho-phthalic acid and are not direct ingredients in the manufacture of Monarch plastisol direct to fabric screen printing inks. Monarch does not test the final product for amounts of the above mentioned phthalate plasticizers and esters and advises users to conduct testing for their intended use.

(Revised 3/19/20)