

Water-based, Pigmented inks for Direct to Garment Inks for T-shirt printing

Water-based, pigmented inks for DTG digital inks designed for printing directly onto fabrics such as Cotton, Polyester and blends. Our DTG inks are available for different printhead platforms. LV series are lower viscosity inks suitable for printers with Epson or Panasonic printhead type. DTG-HV inks are higher viscosity ink sets available for other printhead platforms including Ricoh, Fuji/Dimatix/Spectra and Kyocera.

Application Field: Garments, Home textile, Advertising, Flags & Banners, Canvas, Sportswear, Outdoor etc.

General Features

- Bright colors
- Good fastness properties
- Good drying on fabrics to the printing speed

Substrates: Cotton, Polyester, or blended fabrics with at least 50% cotton while using recommended pretreatment solutions.

Drying Conditions: The recommended temperature for the complete curing of the ink is between 280°F and 290°F for 4 to 6 minutes based on the fabric color in an IR oven with a conveyor belt. The suggested information is strongly affected by the type and weight of the fabric. Typically, light colored fabrics will be cured at lower temperatures than darker colors to prevent discoloration due to heat.

Polyesters fabrics needs to be cured at 240° F for longer times (10-12 mins) to prevent dye migration in an IR oven with conveyor belt.

It is necessary to carry out preliminary tests to identify the best combination of time / temperature for the best yield and brightness of colors.

Colors available:

Process Colors: Cyan, magenta, Yellow, Black and White Inks

Spot Colors: Red and Green available upon request. Additional colors like Violet and Orange can be offered based on the volumes. Wider color gamut expected with the use of spot colors.

Pre-treatment: Two types of pretreatments are available for Cotton as well as Polyester fabrics. For Cotton, please use DX-320 only for better color and wash fastness properties. Lighter fabrics needs 8-12 gms/print area and darker fabrics needs 16-24 gms based on the weight of the fabrics. Drying the fabrics is required before printing with white ink first and then color inks. Typical drying time is 2-4 mins at 240° based on the coating usage and fabric type.

For Polyester, please use DX-158 first to control dye migration and for better ink retention on the fabric before using DX-320 pretreatment. Drying is required in between these two coatings to have better pick up of the coatings. For polyester always use drying or curing at or below 240°F to prevent dye migration or discoloration of the fabrics.

Storage & Shelf Life:

The ink should be stored at a temperature between 10° - 35°C, away from heat and direct sunlight.

If the ink is stored at different conditions from the above, it is recommended to bring the product to the proper operating conditions of temperature and humidity for at least 24 hours before the use. Ink stored in the proper conditions has a shelf-life date of 12 months from date of manufacture. It is typical for water-based, white pigment ink to soft settle if allowed to sit for an extended period of time; the inks must be re-dispersed by shaking the bottles prior to use.

Cleaning: In the event the printer needs to be cleaned, please use our water-based flushing solvent DTG- CLEANER. Please follow all safety precautions found in the product SDS including: avoid contact with skin, wear safety gloves and glasses. Printhead storage solution is available to use when the printer is not being used regularly.

Product Range & Packaging

- 3.5 or 10 Liter plastic containers.
- Pretreatment can be packaged in 200 L drums

General fastness:

LIGHT: according to EN ISO 105B02. Blue scale of 1 (low-poor) to 8 (maximum-Advanced). **WASHING:** according to EN ISO 105C02. Grey scale of 1 (low-poor) to 5 (maximum-Advanced). **PERSPIRATION:** according to EN ISO 105E04. Grey scale of 1 (low-poor) to 5 (maximum-Advanced).

MENTIONED VALUES ARE INDICATIVE AND NOT ESTABLISHED CONDITIONS OF SALE, BEING STRONGLY INFLUENCED BY PRINTING AND TRANSFER CONDITIONS & DIFFERENT KINDS OF FABRIC.

Special Instructions

- It is always recommended to perform print tests on the substrates that you will use prior to full production run.
- Avoid contamination of the product. Do not leave package open or mix with other inks / additives.
- Request Safety Data Sheets, available for all products, and always follow the instructions contained in them for all the specific information and as regards security environmentally.
- The performance of the inks is closely tied to the type of printer used and the printing modes used.

IMPORTANT NOTE

The information given in this technical sheet is not intended to be exhaustive and any person, using the product for any purpose other than that specifically recommended in this sheet without first obtaining written confirmation from us to the suitability of the product for the intended purpose, does so at his own risk.

While we endeavor to ensure that all advice we give about the product is correct, we have no control over either the quality, condition of the substrate or the many factors affecting the use and application of the product.

Therefore, unless we specifically agree in writing to do so, we do not accept any liability whatsoever or howsoever arising for the performance of the product or for any loss or damage arising out of the use of the product.

The information contained in this sheet is liable to modification from time to time in the light of experience and our policy of continuous product development.

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