



Suggested Uses:

Norcote® MFLT Series is a low gloss UV Curable ink system designed for decoration of Polycarbonate, Polyester and Acrylic which require compatibility of the ink film with pressure sensitive adhesives. This system is suitable for embossing, thermal forming and limited In-Mold applications. **It is the responsibility of the end user to pretest all substrates with Norcote® products prior to use in production.**

Product Features

- Excellent Flexibility
- Opaque
- Fast Cure Rates
- Good Intercoat Adhesion
- Compatible With Pressure Sensitive Adhesives

Printing Recommendations:

All inks are supplied at print-ready viscosity, but should be thoroughly mixed prior to each use. If adjustment is needed the MFLT Thinner or MFLT-049 Overprint Clear can be used to thin the ink.

Mesh:

A mesh count of 355-420 threads per linear inch (140-165 threads per cm²) monofilament polyester mesh is recommended for most applications. Tension should range from 18-25 N/cm² on a rigid frame.

Stencil:

Use of UV compatible direct and thin capillary films (15-25µ) are recommended.

Squeegee:

A sharp 80 shore durometer polyurethane squeegee is preferred. Inks can be printed with durometers ranging from 60-90 as well as dual durometer squeegees.

Curing Parameters:

The MFLT Series performs best in non-nitrogen atmosphere curing units, inert atmosphere curing units limit the depth of cure. Curing speeds depend on several factors including ink film thickness and the energy level of the lamps. Ink should be cured immediately after printing.



Curing Equipment:

MFLT Series inks are fast curing and work well with one 300 watts/in (120 watts/cm) or two 200 watt/in (80 watts/cm) medium pressure mercury vapor lamps. The minimum requirement is 200mJ/cm.

Screen Cleaning:

Most conventional solvent cleaners work well. Alcohol based solutions must be avoided as they break down the emulsion. Norcote recommends Press Wash 110 (flash point 113° F), 140 (flash point 140° F) or NSW-824 (flash point 150° F). These products are used for cleaning ink off screens during on press color changes or before storing the screen. They work well when removing ink from squeegees, flood bars and other equipment. Contact us for packaging options.

Coverage:

Approximately 2,200 square feet per gallon (200 square meters per gallon) depending on printing variables affecting ink film thickness and coverage.

Mixing:

All Norcote® MFLT Series colors are intermixable. Addition of any other ink series will impair MFLT Series flexibility and may impair long term adhesion.

Adhesion:

The MFLT Series is a nonvisual post-curing system. Although further cross-linking occurs up to 24 hours later, the MFLT Series inks should pass a crosshatch tape test, (ASTM #D3359-97), using 3-M 600 tape after exiting the curing unit and cooling to room temperature. Pressure sensitive adhesives should be applied after a 24 hour post-cure for best results.

Precautions:

Avoid direct contact of ink with skin and clothing. If contact occurs, wash affected area with warm soapy water and dry thoroughly. If eye contact occurs, irrigate the area with water for 15 minutes and consult a physician. For more specific information, refer to the Material Safety Data Sheet.

Intercoat Adhesion:

MFLT Series inks intercoat adhesion is exceptional. Although loss of intercoat adhesion is difficult, it should be monitored throughout the production run especially when printing 8 or more passes.

Weather resistance is subject to conditions of use. Consult the Technical Service Department prior to use for information regarding weather resistance and weatherable applications of the MFLT Series inks.

Embossing/Die-Cutting:

The MFLT Series inks are very flexible, providing excellent results under most embossing or die-cutting conditions. To obtain acceptable results, the MFLT inks must pass a cross-hatch tape test before embossing. Inks with special effects pigments may not emboss easily. High stress embossing of metallic ink is not recommended.

Metallic Colors:

Most metallic pigments work well with the MFLT-049 Mixing Clear. Ability to cure a suspension is related to pigment load and UV exposure. Select mesh with openings large enough to transfer the metallic pigments of choice; generally a mesh count of 305 threads per inch (120/cm) or lower is required. Metallic pigments will reduce the shelf life of MFLT Series ink mixtures. RECOMMENDATION: Mix only enough metallic ink for one day.

Additives:

Check the Norcote Additives list for the products compatible with this ink series. The list is available on our website at www.norcote.com or call us at 800-488-9180 to receive a copy.

Color Range:

Specific colors can be matched at Norcote® against prints, wet ink or PANTONE® numbers.

Standard Colors:

Matte Yellow Green Shade	015
Matte Red	022
Matte Clear	049
Matte Opaque Black	1019
Matte Opaque White	1046
Matte Black	4000





Storage & Available Warranties

All UV MFLT Series inks should be stored in tightly closed, black polyethylene containers in an area with the temperature not to exceed 90° F (32.2° C). Avoid direct sunlight and indirect white light. Excess ink from print runs should be stored in separate containers to avoid contamination and is not covered under any warranty. When stored under these conditions, Norcote warrants the Products shall be free from defects in material and manufacture for a period of one (1) year from the date of sale for the MFLT Series standard inks, with no additives, and for a period of one (1) month from the date of sale for any custom color containing Day Glo® JZB or T-Powder. **Norcote will not warrant any custom colors containing metallic pastes or any inks intermixed with competitor products.** Any warranties provided will be limited to the price paid for the actual products used which give rise to the warranty claim.

This Technical Bulletin is intended to be used for informational purposes only, and is in no way intended to create any warranties or other obligations on behalf of Norcote. All warranties, terms and/or conditions for a particular product will be specified on the applicable invoice and are only valid upon the creation of a legally-binding contract.

Testing

Due to the inability of Norcote to anticipate or control the conditions under which the Products and information relating thereto will be used and/or stored, Norcote cannot guarantee the results obtained from using the Products. Any Suggested Uses are merely representative, and because the final product will depend on a number of specific factors, the end user should pretest all substrates with the Products prior to use in production.

*PVC Plastics:

Decoration can aggravate embrittlement properties of PVC plastics which can lead to cracking and failure of the plastic. It is strongly recommended that the end user contact the polymer manufacturer to obtain information on the suitability for decorating with a UV ink as well as recommendations for molding / processing to reduce this potential. As every situation can not be tested for in a laboratory environment, it is the responsibility of the end user to determine the suitability of the products chosen for an end application.

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