



Suggested Uses:

The MIR inks are designed for second surface printing on a variety of clear materials. The most common materials include polyesters (print treated and top-coated), PET, Polycarbonate, Polypropylene, and most acrylics. It is the responsibility of the end user to pretest all substrates with Norcote® products prior to use in production.

Product Features

- Mirror-like finish
- Fast Curing
- Excellent adhesion to multiple clear, flat sheet materials

Printing Recommendations:

All inks should be thoroughly mixed prior to use. Inks are supplied at print ready viscosity for most applications. Do not microwave this product.

Mesh:

A mesh count of 355-460 threads per linear inch (140-180 cm) low elongation, monofilament polyester is suggested. Tension should range from 18-25 N/cm² on a rigid frame.

Stencil:

All direct emulsions and thin capillary films (15-25µ before application) compatible with UV inks are acceptable.

Squeegee:

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

Curing Parameters:

MIR second surface inks MIR Series inks cure only when exposed to UV light of the proper wavelength. These inks are fast curing and work well with one 300 watts/in (120 watts/cm) or two 200 watt/in (80 watts/cm) focused medium pressure mercury vapor lamps with millijoules (mJ) and (mW) of:

200 mJ/cm² @ 600 + mW/ cm² minimum.

Curing speeds depend on several factors including ink film thickness and the energy level of the lamps.

Mir inks should be cured immediately after printing to obtain the optimum finish.

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 2,500 square feet per gallon (230 square meters per gallon) depending on printing variables affecting ink film thickness and coverage.

Mixing:

All Norcote MIR Series should be mixed by hand only. Power mixing could have a negative impact on the mirror-like effect.

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 relevant Material Safety Data Sheet.

Adhesion:

The MIR Series is a nonvisual post-curing system. Although further cross-linking occurs up to 24 hours later, the all MIR Series inks should pass a cross hatch tape test, (ASTM #D3359-97), using 3-M 600 tape after exiting the curing unit and cooling to room temperature.

Weatherability:

The MIR series inks are not weatherable. Consult the Technical Service Department prior to use for information regarding weather resistance of the MIR inks.



Chemical/Scuff Resistance:

The MIR Series inks are not meant for scuff, chemical or water resistance at this time. The MIR ink is currently undergoing chemical resistance testing. Resistance could increase with the addition of our compatible Overprint Clear. Please contact Technical Service for more information. Additional information will be published upon completion of testing.

Additives:

ADC7-10000 (0-10%)

Standard Products:

Mirror Silver (Second Surface) MIR5-S8750-34.6
Mirror Silver (Second Surface) MIR5-8850-80
Mirror Silver (Second Surface) MIR8-3430-60

Due to new chemical rules and regulations, different adhesion packages are available depending on global printing locations. Please contact our Technical Service Department for assistance in selecting the best product for your specific application.

Storage & Available Warranties:

All UV MIR 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 **3 months** from the date of manufacture.

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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