



Clear Comparison	MSK-000	MSK-049	MSK-249	MSK-259	MSK-1085
	Mixing Clear	Clear	Ultimate Clear	NY Super Clear	Lens Clear
Optical Clarity (Lens Clear)	ok	ok	Excellent	Excellent	Good
Non-Yellowing	n/a	n/a	Excellent	Excellent	Good
Scratch Resistance	n/a	n/a	Excellent	Good	Good
Flexibility	Excellent	Excellent	Good	Good	Good
Die-Cut	Yes	Yes	Yes	Yes	Yes
Emboss	Yes	Yes	Not Tested	Not Tested	Yes
Mixing/Overprint Clear	Yes	Yes	n/a	Yes	n/a
For Use with Metallics	Yes	Yes	n/a	n/a	n/a
For Use With Pigmented Inks	Yes	Yes	n/a	n/a	n/a
For Use With T-Powders/JZB	Yes	Yes	n/a	n/a	n/a
Non-Blocking	Marginal	Marginal	Yes	Yes	Yes
Outdoor Durability	n/a	n/a	Excellent	Not Tested	n/a
Compatible with Laminates	Good	Good	n/a	Not Tested	Good
Compatible with PSA's	Excellent	Excellent	n/a	Yes	Excellent
Intermixable with UT Transparents	n/a	n/a	Yes	n/a	n/a
Intermixable with MSK Transparents	Yes	Yes	n/a	n/a	Yes

Printing Recommendations:

All inks should be thoroughly mixed prior to use. Inks are supplied at print ready viscosity for most applications. If adjustment is needed the MSK-070 Thinner can be used to thin the ink.

Mesh:

A mesh count of 355-390 threads per linear inch (140-150 cm²) 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 80 shore durometer polyurethane squeegee is preferred. Inks can be printed with durometers ranging from 60-90 as well as dual durometer squeegees.

Mixing:

All Norcote® MSK Series clears are intermixable however some are more flexible than others. This should be monitored for die-cut and emboss applications. Addition of any other ink series could impair MSK Series flexibility and may impair long term adhesion.

Curing Parameters:

The MSK Series clears are fast curing and work well with one 300 watts/in (120 watts/cm) or two 200 watts/in (80 watts/cm) focused medium pressure mercury vapor lamps with millijoules (mJ) and milliwatts (mW) of:

200 mJ/cm² @ 600+mW/cm² minimum for most colors and clears

300 mJ/cm² @ 600+mW/cm² minimum for opaque colors (ie blacks, whites, tans, greys, metallics, etc)

These guidelines are meant to be a starting point only. Curing requirements vary depending on ink film thickness, substrate type, substrate color/background color, curing system, reflector type etc. Testing should always be performed under actual production conditions to determine suitability.

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.

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 MSK Series is a nonvisual post-curing system. Although further cross-linking occurs up to 24 hours later, the MSK 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.

Intercoat Adhesion:

MSK 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.

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.

Storage & Available Warranties

All UV MSK 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 MSK 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.

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*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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