Norcote Technical Bulletin



8400 Clear UV Curable Ink System

Suggested Uses:

The 8400 is recommended for use on lithographic printed paper, card stock and various coated stocks. This product was formulated to produce a high gloss look.



Product Features

- High Gloss
- Quick Curing
- Non-Yellowing
- Abrasion Resistant
- Good Adhesion
- Resistant to Blocking

Printing Recommendations:

All inks should be thoroughly mixed prior to use.

Mesh:

A mesh count of 305-355 threads per linear inch (120-140 cm²) low elongation, monofilament polyester is suggested. Tension should range from 18-25 N/cm² on a rigid frame.

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.

Stencil:

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

Coverage:

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

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.

Mixing:

Do not intermix with other ink series.

Curing Parameters:

Norcote's® 8400 Series inks cure only when exposed to UV light of the proper wavelength. 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:

The 8400 is fast curing and works well with one focused 200 watt/in (80 watts/cm) medium pressure mercury vapor lamps. The 8400 inks will cure up to 80 feet per minute (25 meters per minute) with most focused UV curing units.

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.

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Adhesion:

The 8400 Series is a nonvisual post-curing system. Although further cross-linking occurs up to 24 hours later, the 8400 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.

Weatherability:

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 8400 Series inks.

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. Thoroughly mix all additives both prior to and after addition into base inks. Store additives in a tightly sealed container.

Storage & Available Warranties

All 8400 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 8400 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.

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