Norcote Technical Bulletin



DBW Digital Backing White

UV Curable Ink System

Suggested Uses:

The DBW is a newly developed single component system recommended for use as a backing for HP Indigo Digital offset color. ElectroInk®, and other digital printed material. It is the responsibility of the end user to pretest all substrates with Norcote® products prior to use in production.

Product Features:

- Wide Range of Substrates and Digital Inks
- Superb Adhesion
- Resistant to Blocking
- High Opacity
- Fast Curing
- Compatible with Adhesives

Printing Recommendations:

All inks should be thoroughly mixed prior to use. Inks are supplied at print ready viscosity for most applications.

Adhesives:

Always test adhesive compatibility prior to production runs. Curing is very important and will play a part in adhesive compatibility. See below regarding ADC-172 additive.

Adhesion:

The DBW is a nonvisual post-curing system. The addition of ADC-172 Water Resistant Adhesion Promoter is recommended at 2-5% by weight and allowed to post cure for a minimum of 1 hour for best adhesion. The ADC-172 will reduce the pot life of the ink to 3-8 hours depending on the percentage added.

Mesh:

A mesh count of 305-390 threads per linear inch (120-150 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.

Coverage:

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

Standard Colors:

Digital Backing White DBW-1046
Nano Digital Backing White DBW-1057

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.

Curing Parameters:

Norcote® DBW cures 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:

DBW is fast curing and works well with one 300 watts/in (120 watts/cm) or two 200 watt/in (80 watts/cm) medium pressure mercury vapor lamps. The DBW will cure up to 100 feet per minute (30 meters per minute) with most focused UV curing units.

Intercoat Adhesion:

DBW's intercoat adhesion is very good. Although loss of intercoat adhesion is difficult, it should be monitored throughout the production run especially when printing 6 or more passes. Use of additives may adversely affect intercoat adhesion.

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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Storage & Available Warranties

All UV DBW 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 DBW standard ink, 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

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