

NSC45 Overprint Clear UV Screen Ink (Part A) with the addition of 5% by weight NB80 Adhesion Promoter (Part B) is designed to exhibit excellent adhesion to HP Indigo® digital offset prints.

NSC45 provides a glossy, scuff resistant surface.

**SUBSTRATES** Pre-treated polycarbonate, polyesters, vinyl, pressure-sensitive films

## USER INFORMATION

*While technical information and advice on the use of this product is provided in good faith, the User bears sole responsibility for selecting the appropriate product for their end-use requirements. See full disclaimer at the end of the document.*

**MESH** 305-380 threads per inch (120-150 threads per centimeter) monofilament polyester mesh for most applications

**STENCIL** Solvent resistant, UV ink compatible direct emulsions and capillary films

**SQUEEGEE** 70-80 durometer polyurethane squeegee

**COVERAGE** 2500-3500 square feet (232-325 square meters) per gallon depending upon ink deposit

**PRINTING** NSC45 Overprint Clear ink must be catalyzed with NB80 Adhesion Promoter. Thoroughly mix the ink prior to printing.  
 Maintain ink temperature at 65°-90°F (18°-32°C) for optimum print and cure performance. Lower temperatures increase the ink viscosity, impairing both flow and cure. Elevated temperatures lower the ink viscosity, reducing print definition and film thickness.  
 Pretest to determine optimum printing performance for a particular set of ink, substrate, screen, press, and curing variables/conditions.  
 The ink can be affected by stray UV light. Be aware of skylights, windows and overhead lights curing the ink in the screen. Leaving a container uncovered may result in the ink's surface forming a "skin," caused by initial chemical reaction with room lighting or other stray lights. Keep containers covered. Light filters are recommended.

**CURE PARAMETERS** The NSC45 with 5% NB80 cures with a medium pressure mercury vapor bulb commonly used in curing UV-curable ink systems. Recommended starting cure parameters are 200 millijoules and 800 milliwatts. Cure speeds will vary depending on ink deposit, curing unit conditions and substrate.  
 Allow the ink film and substrate to cool before testing for adhesion. The cured ink film exhibits a 24-hour post cure.

**ADDITIVES** All additives should be thoroughly mixed into the ink before each use. Prior to production, test any additive adjustment to the ink.  
Reducer: Use RE312 Reducer to reduce viscosity. Add up to 10% by weight.  
Flexibilizer: Use RE308 UV Reducer to increase flexibility. Add up to 10% by weight. The addition of RE308 could cause a decrease in block resistance.  
Adhesion Promoter: Add NB80 Adhesion Promoter at 5% by weight. Improved adhesion will not be demonstrated for 24 hours, with full cross linking in 5-7 days. Ink mixed with NB80 has a 4-8 hour pot life.

**CLEAN UP** *Screen Wash (Prior to Reclaim):* Use IMS203 Economy Graphic Screen Wash or IMS207C Graphic Recirculating Wash.  
*Press Wash (On Press):* Use IMS301 Premium Graphic Press Wash.

**STORAGE** Store tightly covered at temperatures between 65°-90°F (18°-32°C). Ink taken from the press should not be returned to the original container; store separately to avoid contaminating unused ink.

## GENERAL INFORMATION

**INK HANDLING** Direct skin contact to UV inks is the primary route of exposure and irritation. Therefore, it is recommended that all personnel handling these products wear gloves and barrier cream to prevent direct skin contact. Safety glasses are suggested in areas where ink may be splashed. If ink does come in contact with skin, wipe ink off with a clean, dry cloth (do not use solvent or reducer). Wash the affected area with soap and water. Consult the NSC45 Material Safety Data Sheet for further instructions and warnings.  
The NSC45 is a 100% solids UV-curable screen printing ink and does not contain N-vinyl-2-pyrrolidone (trade name V-Pyrol®).

**ADHESION TESTING** Even when recommended UV energy output levels are achieved, it is imperative to check adhesion on a **cooled down** print:

1. Touch of ink surface – the ink surface will be smooth and slick.
2. Thumb twist – the ink surface will not mar or smudge.
3. Scratch surface – the ink surface will resist scratching\*.
4. Cross hatch tape test – use a cross hatch tool or a sharp knife to cut through ink film only; then apply 3M #600 clear tape on cut area, rub down, wait for 1 minute and rip off at a 180 degree angle. Ink should only come off in actual cut areas.

\*Full adhesion characteristics are demonstrated 24 hours after cure. At this point the ink film should be difficult to scratch with the thumbnail.

## PRODUCT OFFERING

**PACKAGING** NSC45 Overprint Clear is available in gallon containers.

**PACKAGING** Additives/Reducers are available in liter and/or gallon containers.  
Cleaners are available in 1-gallon, 5-gallon and 55-gallon containers.

Stock Number	Additives/Reducers	Stock Number	Cleaners
RE312	Reducer	IMS203	Economy Graphic Screen Wash
RE308	UV Reducer	IMS207C	Graphic Recirculating Wash
NB80	Adhesion Promoter (liters only)	IMS301	Premium Graphic Press Wash

*Nazdar® stands behind the quality of this product. Nazdar® cannot, however, guarantee the finished results because Nazdar® exercises no control over individual operating conditions and production procedures. While technical information and advice on the use of this product is provided in good faith, the User bears sole responsibility for selecting the appropriate product for their end-use requirements. Users are also responsible for testing to determine that our product will perform as expected during the printed item's entire life-cycle from printing, post-print processing, and shipment to end-use. This product has been specially formulated for screen printing, and it has not been tested for application by any other method. Any liability associated with the use of this product is limited to the value of the product purchased from Nazdar®.*

Based on information from our raw material suppliers, these products are formulated to contain less than 0.06% lead.  
If exact heavy metal content is required, independent lab analysis is recommended.

Nazdar Worldwide Headquarters  
8501 Hedge Lane Terrace, Shawnee, KS 66227-3290 USA  
Toll Free: 866.340.3579 or Tel: 913.422.1888 Fax: 913.422.2296  
e-mail: [custserv@nazdar.com](mailto:custserv@nazdar.com)

Nazdar Limited  
Barton Road, Heaton Mersey, Stockport, England SK4 3EG  
Tel: + (44) 0.161.442.2111 Fax: + (44) 0.161.442.2001  
e-mail: [technicalservicesuk@nazdar.com](mailto:technicalservicesuk@nazdar.com)

<http://www.nazdar.com>