

NSC15 UV Signature White and NSC16 UV Signature Clear are UV screen inks that provide a matte surface suitable for writing onto with most ball-point pens or permanent markers. NSC15 & NSC16 Signature inks are also used as overprint inks to provide a matte surface.

SUBSTRATES Styrene, rigid vinyl, pressure sensitive vinyl, polycarbonates, some acrylics, coated papers, coated cardstocks and treated polypropylenes (see Additives section)

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 355 tpi (140 tpcm) monofilament polyester mesh for most applications

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

SQUEEGEE 70-90 durometer polyurethane squeegee

COVERAGE 3,000-3,500 square feet (275–325 square meters) per gallon depending upon ink deposit

PRINTING NSC15 & NSC16 Signature inks are formulated to be press ready. 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.
 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 in and around a printing facility. 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 reaction with room lighting or other stray lights. Keep containers covered. Light filters are recommended.

CURE PARAMETERS NSC15 & NSC16 Signature inks cure when exposed to a medium pressure mercury vapor lamp set at 200 watts per inch with millijoules (mJ) and milliwatts (mW) of:
 80-130 mJ/cm² @ 600+ mW/cm²

These guidelines are intended only as a starting point for determining cure parameters, which must be determined under actual production conditions. "Undercuring" the ink may result in poor adhesion and higher residual odor. "Overcuring" the ink may reduce the flexibility of the printed part.

To increase mJ levels, slow down the belt speed or scan speed. To increase mW levels, increase the wattage setting of the UV reactor. To optimize mJ and mW output, maintain the bulb and reflector condition and focus to the substrate.

The values mentioned above are representative of measurements taken using an EIT UVICURE Plus radiometer measuring the UVA bandwidth (320-390 nm). To obtain accurate mW readings with the UVICURE Plus, reduce the belt speed to less than 40 ft/min.

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 RE301 UV Reducer to reduce the viscosity of these inks. Add up to 5% by weight.

Flexibilizer: Use RE308 UV Reducer to increase the flexibility of these inks. Add up to 10% by weight. The addition of RE308 UV Reducer could show a decrease in block resistance.

Adhesion Promoter: Use NB80 UV Adhesion Promoter to enhance adhesion on treated polypropylenes. Add up to 5% by weight. Improved adhesion will not be demonstrated for 24 hours, with full cross linking in 4-7 days. Ink mixed with NB80 UV Adhesion Promoter 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

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 NSC15 & NSC16 Signature ink's Material Safety Data Sheet for further instructions and warnings.

NSC15 & NSC16 Signature inks are a one-part, 100% solids UV-curable screen printing ink which 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. Thumb twist – the ink surface should not mar or smudge.
2. Scratch surface – the ink surface should resist scratching.
3. 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 within 4 hours after cure.

PRODUCT OFFERING

PACKAGING

All items listed below are available in gallon containers.

Item Number	Item Description	Item Number	Item Description
NSC15 <i>(Previously: 6001884416)</i>	SPL UV 16 Signature White	NSC16 <i>(Previously: 6001884316)</i>	SPL UV 16 Signature Clear

PACKAGING

Additives/Reducers are available in liters and gallons.
Cleaners are available in gallon containers.

Item Number	Additives/Reducers	Item Number	Cleaners
RE301	UV Reducer	IMS203	Economy Graphic Screen Wash
RE308	UV Reducer	IMS207C	Graphic Recirculating Wash
NB80	UV Adhesion Promoter (quarts 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.

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