

NSC41 UV Air Texture Clear is specifically designed to give a decorative texture effect on first surface polycarbonate and some pre-treated polyester used for membrane overlay applications. Texture may vary from medium to very fine depending on the screen mesh. Gloss may also vary depending on screen mesh and substrate.

**SUBSTRATES** Polycarbonate and some pre-treated polyester

## 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** 110 - 260 threads per inch (43 – 100 threads per centimeter) monofilament polyester mesh for most applications

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

**SQUEEGEE** 70-90 durometer polyurethane squeegee

**COVERAGE** 1500 - 3000 square feet (139 – 279 square meters) per gallon depending upon ink deposit

**PRINTING** The NSC41 ink is 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, 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 NSC41 ink cures when exposed to a medium pressure mercury vapor lamp set at 300 watts per inch with millijoules (mJ) and milliwatts (mW) of:  
 $>200 \text{ mJ/cm}^2 @ 600 \text{ mW/cm}^2$   
 These guidelines are intended only as a starting point for determining cure parameters, which must be determined under actual production conditions. 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 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 RE302 UV Reducer to reduce viscosity. Add up to 10% by weight. The addition of reducer may increase gloss and/or change texture effect.

#### 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

Inks react to light and temperature. 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 NSC41 Material Safety Data Sheet for further instructions and warnings.

The NSC41 is a one-part, 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 dry to touch.
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 within 24 hours after cure.

### PRODUCT OFFERING

#### COLOR CARD MATERIALS

The following is a list of screen printed samples available.

UV Texture Clears Color Card: shows all standard UV texture clears available, including air texture clears and nitrogen texture clears

3400 Series UV Screen Ink Color Card: shows all standard 3400colors.

**PACKAGING** NSC41 is available in gallon containers.

**PACKAGING** Additives/Reducers are available in quarts.  
 Cleaners are available in quart and gallon containers.

| Stock Number | Additives/Reducers | Stock Number | Cleaners                    |
|--------------|--------------------|--------------|-----------------------------|
| RE302        | UV Reducer         | IMS203       | Economy Graphic Screen Wash |
|              |                    | IMS207C      | Graphic Recirculating Wash  |
|              |                    | 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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