

NSC42C Nitrogen TC Coarse and NSC42F Nitrogen TC Fine UV Screen Inks are specifically designed for use with germicidal lamps in an inert atmosphere to give a decorative textured effect on first surface polycarbonate for membrane overlay applications.

SUBSTRATES Polycarbonate

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 255-380 threads per in inch (100-150 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 The NSC42C will produce a coarse texture finish while NSC42F will produce a fine texture. A medium texture is achieved when blending the NSC42C and NSC42F. Both 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, 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 NSC42C and NSC42F cure in a nitrogen unit at 15 to 20 fpm when initially exposed to a germicidal lamp in an inert atmosphere and immediately cured with diffused lamps with nitrogen or with focused bulbs without nitrogen.

The appearance of the texture can vary depending on the amount of reducer, nitrogen flow, ink deposit, substrate used, belt speed, curing unit heat and wattage output.

Testing using actual production equipment must be done prior to any production run.

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 RE307 Reducer to reduce the viscosity of these inks. Add up to 10% by weight.

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 NSC42C and NSC42F Material Safety Data Sheet for further instructions and warnings.

The NSC42C and NSC42F are one-part, 100% solids UV-curable screen printing inks which do 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 within 4 hours after cure.

PRODUCT OFFERING

COLOR CARD MATERIALS

The following is a list of screen printed samples available.

UV Texture Clears Color Card: shows available standard textures.

PACKAGING

NSC42C and NSC42F are available in quart and gallon containers.



NSC42C & NSC42F NITROGEN TEXTURE CLEAR UV SCREEN INK

TECHNICAL DATA SHEET

PACKAGING

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

Stock Number	Additives/Reducers	Stock Number	Cleaners
RE307	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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