

Nazdar PSPC Series Nitrogen Texture Overprint Clear UV Screen Inks

PSPC Nitrogen Texture Overprint Clear UV Screen Inks have been specifically formulated for top or first surface printing on polycarbonate and some top coated or print treated polyester used in membrane overlay applications. These inks are not recommended for hard coated polycarbonate and polyester surfaces.

These inks produce a variety of textures when cured in an inert atmosphere using a germicidal lamp. The appearance of the texture depends on ink deposit, nitrogen flow and belt speed. Some of the inks may be mixed together to achieve different textures. Please refer to the Inter-Mixing section to determine ink compatibility. Properly cured, these inks exhibit excellent adhesion as well as solvent, moisture and mar resistance.

Substrates

- Polycarbonate
- Some pre-treated or primed polyesters

Substrate recommendations are based on commonly available materials intended for the ink's specific market when the inks are processed according to this technical data. 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. Reference the 'Quality Statement' at the end of this document.

User Information

Mesh

305-420 tpi (120-165 tpcm) monofilament polyester mesh for most applications.

Stencil

Use direct emulsions and capillary films which are solvent resistant and UV compatible.

Squeegee

70-90 durometer polyurethane squeegee.

Coverage

Estimated 2,500 – 4,000 square feet (230 – 370 square meters) per gallon depending upon ink deposit.

Printing

PSPC Series is formulated to be press ready. Thoroughly mix the ink prior to printing. Improper mixing can lead to inconsistent color and ink performance.

Maintain ink temperature at 65°-90°F (18°-32°C) for optimum print and cure performance. Lower temperatures increase the ink viscosity, impairing flow and increasing film thickness. Elevated temperatures lower the ink viscosity and film thickness.

Pretest to determine optimum printing parameters 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; light filters are recommended. Leaving a container uncovered may result in the ink's surface forming a "skin", caused by reaction with ambient lighting. Keep containers covered.

Cure Parameters

PSPC Nitrogen Texture Overprint Clears need an inert atmosphere (nitrogen) for texturing and curing. Texture is achieved using a germicidal lamp in an inert atmosphere. Surface hardness is exhibited after curing in an inert atmosphere immediately after texturing.

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.

Common Performance Additives

When required, any additives should be thoroughly mixed before each use. Prior to production, test any additive adjustment to the ink. Inks containing additives should not be mixed with other inks.

Example for additives: Ink at 100g with 8% of an additive is calculated as:

$$100\text{g ink} + 8\text{g additive} = 108\text{g total}$$

Reducer: Use RE301 UV Reducer to reduce the viscosity of these inks. Add up to 10% by weight.

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The addition of reducer may increase gloss and/or change texture effect.

Cleanup

Screen Wash (Prior to Reclaim): Use IMS201 Premium Graphic Screen Wash, IMS203 Economy Graphic Screen Wash, or IMS206 Graphic Auto Screen Wash.

Press Wash (On Press): Use IMS301 Premium Graphic Press Wash.

Storage / Shelf Life

Store closed containers at temperatures between 65°-78°F (18°-25°C). Storing products outside of these recommendations may shorten their shelf life. Ink taken from the press should not be returned to the original container; store separately to avoid contaminating unused ink.

For more detail pertaining to the shelf life of Nazdar's ink products, contact Nazdar Technical Service at InkAnswers@nazdar.com or see contact listing at the end of this document.

Processing

Finishing: Allow at least a 24-hour post cure before die cutting or embossing.

Inter-Mixing

PSPC27 Very Coarse Nitrogen TC can be inter-mixed with PSPC27T Fine Nitrogen TC.

PSPC27H Very Fine Nitrogen TC and PSPC27Y can be inter-mixed with any of the PSPC Series inks.

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 applicable [Safety Data Sheet](#) (SDS / MSDS) for further instructions and warnings.

PSPC27H and PSPC27T contain N-vinyl-2-Pyrrolidone (NVP), trade name V-Pyrol®. These clears are intermixable with each other and with other PSPC clears.

For assistance on a wide range of important regulatory issues, consult the following

Regulatory Compliance Department link at <http://www.nazdar.com> or contact Nazdar Ink Technologies - World Headquarters (see contact listing at the end of this document).

Adhesion Testing

Even when recommended UV energy output levels are achieved, it is imperative to check the degree of cure on a **cooled down** print:

1. Touch of ink surface – the ink surface should be smooth.
2. Thumb twist – the ink surface should not mar or smudge.
3. Scratch surface – the ink surface should resist scratching.
4. Cross hatch tape test – per the ASTM D-3359 method, 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, and rip off at a 180 degree angle. Ink should only come off in actual cut areas.

Manufacturer's Product Offering

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

Packaging / Availability

Contact your Nazdar distributor for product availability and offering.

Standard Ink Items

Item Number	Color
PSPC27	Very Coarse Nitrogen TC
PSPC27H	Very Fine Nitrogen TC
PSPC27T	Fine Nitrogen TC
PSPC27Y	Fine Nitrogen TC

Additives / Reducers

Item Number	Item Description
RE301	UV Reducer

Cleaners / Clean Up

Item Number	Item Description
IMS201	Premium Graphic Screen Wash
IMS203	Economy Graphic Screen Wash
IMS206	Graphic Auto Screen Wash
IMS301	Premium Graphic Press Wash

UV Screen Ink

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v 4 EN

Ref: v 4 EN

Nazdar Quality Statement

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®.

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