

Nazdar NSC19 UV Digital Primer 42SPDR Clear

NSC19 UV Digital Primer 42SPDR Clear is a screen printable clear used to surface coat a substrate that will be overprinted with Nazdar UV curable digital ink to increase adhesion of the digital ink.

Substrates

Treated fluted/corrugated polypropylene (PP)

Substrate Material(s) listed below may be Limited in Adhesion (*testing highly recommended for each print run*)

Treated polyethylene (PE)

Treated polypropylene (PP)

(Note: The surface tension for polyethylene and polypropylene substrates should be at or above 44 dynes/cm.)

Notes & Cautions

The surface tension for polyethylene and polypropylene substrates should be at or above 44 dynes/cm.

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.

Mesh

355-420 tpi (140-165 tpcm) with a mesh opening of 22-38 um 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.

Screen Printing

Standard items are formulated to be press ready. Thoroughly mix the ink prior to printing. Improper mixing can lead to inconsistent color and ink performance.

Pretest to determine optimum printing parameters for a particular set of ink, substrate, screen, press, and curing variables/conditions.

Cure Parameters

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, lower block resistance, reduced durability, and higher residual odor. "Overcuring" the ink may reduce the flexibility of the printed part and adhesion of subsequent ink layers.

Mercury Vapor UV Curing: Standard ink cures when exposed to a single medium pressure mercury vapor lamp emitting output millijoules (mJ) and milliwatts (mW) of:

100-150 mJ/cm² @ 600+ mW/cm²

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

Inter-Printable

Digital Ink Printing print the newly screen printed, primed surface as soon as possible. best inter-adhesion, allow the digitally printed surface to post-cure for 24 hours at room temperature.

Adhesion Testing

When recommended UV energy output levels are achieved, checking the degree of cure on a **cooled down** print is imperative:

- Thumb twist – the ink surface should not mar or smudge.
- Scratch surface – the ink surface should resist scratching.

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- 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.

Cleanup

For screen cleaning, similar products to those listed below may be used.

Screen Wash (Prior to Reclaim): Use IMS201 Premium Graphic Screen Wash or IMS203 Economy Graphic Screen Wash
Press Wash (On Press): Use IMS301 Premium Graphic Press Wash

Ink Modifications

Additives

The market specific performance properties of this ink series / ink item should be acceptable for most applications without the need for 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: 100g ink + 8g additive = 108g total

Reducer / Thinner

Use the following item(s) to reduce the viscosity of these inks. Over reduction can reduce print definition, film thickness and adversely affect cure.

RE312 UV Reducer: add up to 10%

Adhesion Promoter

Use the following item(s) to enhance adhesion.

NB80 UV Adhesion Promoter: add up to: 5%. Improved adhesion will be demonstrated within 8-24 hours, with full crosslinking in 4-7 days. Ink mixed with NB80 UV Adhesion Promoter has a 4-8 hour pot life. NB80 is sensitive to humidity and moisture; clean the lid and container thoroughly after each use to prevent fusing of the container.

General Information

Handling

Refer to the SDS for recommendations on handling.

Wear gloves and barrier cream to prevent direct skin contact. Safety glasses are suggested in areas where ink may be splashed. If product 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.

This ink series is a one-part, 100% solids UV-curable screen printing ink and does not contain N-vinyl-2-pyrrolidone (trade name V-Pyrol®).

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).

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.

Standard items supplied in 1-gallon (4/5 kilo) containers or smaller. Useable for a period of at least **12 months** from the date of manufacture.

Shelf life above applies to the standard ink items listed on this TDS. To obtain the shelf life for special inks and additives, contact Nazdar Customer Service or Nazdar Technical Service. See contact listing at the end of this document.

Standard Color Range

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.

Nazdar NSC19 UV Digital Primer 42SPDR Clear**Packaging / Availability**

Contact your Nazdar distributor for product availability and offering.

Item Type	Item Number	Item (or Color) Description
Clears / Varnishes	NSC19	UV Digital Primer 42SPDR Clear
Additives	RE312	UV Reducer
Additives	NB80	UV Adhesion Promoter
Cleaners	IMS201	Premium Graphic Screen Wash
Cleaners	IMS203	Economy Graphic Screen Wash
Cleaners	IMS301	Premium Graphic Press Wash

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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