

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.

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Substrates

- Treated fluted polypropylene
- Most rigid and flexible treated polyethylene
- Most rigid and flexible treated polypropylene

(Note: 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.

User Information

Mesh

355-420 tpi (140-165 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.

Printing

NSC19 is formulated to be press ready. Thoroughly mix the ink prior to printing. Improper mixing can lead to inconsistent ink performance.

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

Cure Parameters

NSC19 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 intended only as a starting point for determining cure parameters, which must be determined under actual production conditions.

These guidelines 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.

Common Performance Additives

The market specific performance properties of the NSC19 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.

Reducer: Use RE312 UV Reducer to reduce the viscosity. Add up to 10% by weight. Over reduction can reduce print definition, film thickness and adversely affect cure.

Adhesion Promoter: Use NB80 UV Adhesion Promoter to enhance adhesion. Add up to 5% by weight. Improved adhesion will be demonstrated within 24 hours, with full cross linking in 4-7 days. Ink mixed with NB80 UV Adhesion Promoter has a 4-8 hour pot life.

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.

NSC19 supplied 1 gallon (4/5 kilo) containers or smaller are useable for a period of at least 24 months from the date of manufacture. Inks packaged in 5 gallon or greater (20 kilo or greater)

UV Screen Ink

containers may have a significantly reduced shelf life. To obtain the official shelf life letter, Contact Nazdar Technical Service at InkAnswers@nazdar.com or see contact listing at the end of this document.

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.

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).

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. Thumb twist – the ink surface should not mar or smudge.
2. Scratch surface – the ink surface should resist scratching.
3. 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.

Digital Ink Printing

Digitally print the newly screen printed, primed surface as soon as possible.

For best inter-adhesion, allow the digitally printed surface to post-cure for 24 hours at room temperature.

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

Standard ink listed below is inventoried in gallon containers.

Item Number	Color
NSC19	UV Digital Primer 42SPDR Clear <i>(Previously 6002945942 SPL 42 SPDR Clear)</i>

Additives / Reducers

Item Number	Item Description
RE312	UV Reducer
NB80	UV Adhesion Promoter

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

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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Nazdar Ink Technologies Offices Worldwide

Nazdar Ink Technologies -World Headquarters

8501 Hedge Lane Terrace
Shawnee, KS 66227-3290 USA
Toll Free US: 866-340-3579
Tel: +1 913-422-1888
Fax: +1 913-422-2296

E-mail: NazdarOrders@nazdar.com

Technical Support E-mail: InkAnswers@nazdar.com

Nazdar Limited – EMEA

Barton Road, Heaton Mersey
Stockport, England SK4 3EG
Tel: + (44) 0-161-442-2111
Fax: + (44) 0-161-442-2001

UK Technical Service E-mail: technicalservicesuk@nazdar.com

Nazdar – Asia Pacific

11 Changi North Street 1 #03-03/04
Singapore 498823
Tel: +65-63854611
Fax: +65-65433690

E-mail: aspac@nazdar.com

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