

Nazdar NSC61 IR Transmitting Black

Solvent-Based Screen Ink

v 5 EN

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NSC61 IR Transmitting Black is formulated to adhere to transparent polycarbonate, pre-treated polyester and acrylic. The ink allows high transmission at wavelengths starting from 700 nanometers and longer and exhibits good opacity with low visible light transmission. Transmission efficiency may be affected by the ink layer and addition of additives to the ink; spectrometer measurements may vary. The NSC61 is compatible to inter-print with the 8400 Series solvent-based screen ink system. Thorough testing is necessary before any production run.

Substrates

- Polycarbonate
- Pre-treated or primed polyester
- Acrylic

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

200-305 tpi (78-120 tpcm) monofilament polyester mesh for most applications.

Stencil

Use direct emulsions and capillary films which are solvent resistant.

Squeegee

70-80 durometer polyurethane squeegee.

Coverage

Estimated 1,200-1,800 square feet (111 -167 square meters) per gallon depending upon ink deposit. Reference www.nazdar.com for examples of coverage calculations.

Printing

NSC61 is formulated to be press ready. Add only enough ink to the screen to be able to print for 5-10 minutes. Add additional ink in small increments throughout the print run to maintain screen stability. 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, reducing print definition and film thickness.

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

Nazdar does not recommend inter-mixing of NSC61 with other inks besides the 8400 Series Inks.

Drying / Curing Parameters

Conveyorized dryers set at temperatures of 150°F - 190°F (66°C - 88°C) will dry the ink in 30 to 40 seconds. Good air circulation is necessary to remove the vaporized solvents. Multiple layers of ink may require longer drying times than a single layer. Block resistance should be carefully tested prior to stacking printed pieces.

Common Performance Additives

The market specific performance properties of the NSC61 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:

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

The recommended sequence for adding additives is: thinner and/or retarder first and the catalyst or adhesion promoter last. The addition of any additive may affect transmission properties; test thoroughly before production.

Reducer: Use RE195 Thinner/Screen Wash to reduce the viscosity of these inks. Add up to 15% by weight. RE195 may also be used to wash ink from the screen.

Solvent-Based Screen Ink

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Solvent-Based Screen Ink

Retarder: Use RE196 Retarder or a combination of RE196 Retarder and RE195 Thinner/Screen Wash to slow the drying of this ink. Add up to 15% by weight for one or a total of both additives.

Adhesion Promoter: Use NB80 Adhesion Promoter to enhance adhesion to some films. Add up to 4% by weight. Ink mixed with NB80 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.

Standard NSC61 items are useable for a period of at least 48 months from the date of manufacture. 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

All personnel mixing and handling these products must wear gloves and eye protection. Clean up spills immediately. If ink does come in contact with skin, wipe ink off with a clean, dry, absorbent cloth (do not use solvent or thinner). Wash the affected area with soap and water. Consult the applicable [Safety Data Sheet](#) (SDS / MSDS) for further instructions and warnings.

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

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

Standard ink items listed below are inventoried in gallon containers.

Item Number	Item
NSC61	IR Transmitting Black (formerly 6002050584)

Additives / Reducers

Item Number	Color
RE195	Thinner/Screen Wash
RE196	Retarder
NB80	Adhesion Promoter

Cleaners / Clean Up

Item Number	Color
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.

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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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