

60009765KI Special Mirror Silver Screen Ink is a solvent-based ink for printing second surface on transparent polycarbonate and pre-treated polyester film. The ink film exhibits a mirror-like reflective surface when viewed through the top or first surface of the transparent film. 60009765KI is not compatible with laminating adhesives. See section on Overprint. Printing the ink over other ink systems is not recommended. The thoroughly dried ink film may be overprinted with a clear, black or white for enhanced protection but overprinting is not necessary for the mirror effect. Compatible Nazdar screen inks for overprinting are 9700 Series, 2400 UV Series, 3400 UV Series, 1800 UV Series, and 4000 UV Series.

Substrates

- Polycarbonate
- Pre-treated polyester

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

255-355 tpi (100-140 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 1,800 – 2,500 square feet (93 – 230 square meters) per gallon depending upon ink deposit. Reference www.nazdar.com for examples of coverage calculations.

Printing

Due to the higher viscosity of the 60009765KI Special Mirror Silver ink compared to other mirror silver inks, the addition of 10% to 30% by weight RE180 Thinner or in combination with RE185 Retarder may be necessary for printability and on-screen stability. Adding small incremental amounts of fresh ink on the screen throughout the print run also helps maintain on-screen stability. Thoroughly mix the ink prior to printing.

The ink must be mixed at low shear to prevent damaging the aluminum pigment.

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

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

Nazdar does not recommend inter-mixing of 60009765KI with any other ink.

Drying / Curing Parameters

The ink may be dried at room temperature or in a 140°F (60°C) oven for at least 15 minutes (drying time depends on mesh used and other factors affecting ink film thickness). Conveyor drying may also be used with temperatures at or below 140°F (60°C). The ink film must be dry to touch, after which time the ink film may be dried at higher temperature to speed up the drying. Drying at higher temperatures may affect the mirror-like appearance. The ink must be thoroughly dried for optimal properties.

Due to varying ink deposits and production equipment, it is recommended that the printer evaluate the drying time and temperature that will allow the maximum reflectance for the specific application. Good air circulation is necessary to remove the vaporized solvents.

Common Performance Additives

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

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

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

Thinner: Use RE180 Thinner to reduce the viscosity of these inks. Add up to 30% by weight.

Retarder: Use RE185 Retarder to reduce the slow the drying of these inks. Add up to 30% by weight.

Overprint

Overprints: The following Nazdar ink systems may be printed over a thoroughly dried 60009765KI ink film: 9700, 3400, 1800, and 4000. Refer to each ink system's Technical Data Sheet for more information regarding any of these inks.

Overprinting with a clear or solid color ink will provide some protection to the metallic. Due to the pigment load and nature of metallic pigments, the 60009765KI may not exhibit satisfactory adhesion to the substrate and overprints may not pass cross hatch tape test. Overprinting with other ink systems may cause incompatibility which affects the mirror finish; test thoroughly.

Due to the nature of the metallic pigments used in these types of the product, the layer of mirror silver may not pass tape and cross hatch tape tests. The pigment has the tendency to split or lift off upon removal of tape or adhesives from the printed surface making the mirror layer the weakest interface. Overprinting with other ink systems may cause incompatibility which affects the mirror finish; test thoroughly.

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.

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).

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.

Item Number	Color
60009765KI	Special Mirror Silver Screen Ink

Additives / Reducers

Item Number	Color
RE180	Thinner
RE185	Retarder

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. 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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Solvent-Based Screen Ink