

PSLC294 UV Litho Overprint Clear is a screen printable UV clear coat that has been formulated to yield a very durable and flexible film that exhibits an exceptional gloss finish. PSLC294 is designed to screen print over previously offset printed paper and cardstock.

Substrates

- Coated Paper
- Coated Cardstock

Substrate recommendations are based on commonly available materials intended for the ink's specific market when the ink is 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

Coarser mesh counts and/or twill weave result in heavier ink deposit and may require additional cure output.

Stencil

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

Squeegee

70-90 durometer polyurethane squeegee.

Printing

PSLC294 UV Litho Overprint Clear is formulated to be press ready. Thoroughly mix the ink prior to printing.

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

Pretest to determine optimum printing performance 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. Leaving a container uncovered may result in the ink's surface forming a "skin," caused by a reaction initiated by room

lighting or other stray lights. Keep containers covered. Light filters are recommended.

Nazdar does not recommend inter-mixing of PSLC294 with other inks.

Cure Parameters

PSLC294 cures when exposed to a single medium pressure mercury vapor lamp emitting millijoules (mJ) and milliwatts (mW) of:

150 mJ/cm² @ 600+ mW/cm² UVA
for most applications

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.

To increase mJ levels, slow down the belt speed or scan speed. To increase mW levels, increase the wattage setting of the UV reactor. To optimize mJ and mW output, maintain the bulb and reflector, and ensure proper focus to the substrate.

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 PSLC294 UV Litho Overprint Clear 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.

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

100g ink + 8g additive = 108g total

Nazdar PSLC294 UV Litho Overprint Clear

Reducer: Use RE302 UV Reducer to reduce the viscosity of this ink. Add up to 15% by weight. Over reduction can reduce print definition, film thickness and adversely affect cure.

Flexibilizer: Use RE308 UV Reducer to increase the flexibility of this ink. Add up to 15% by weight. The addition of RE308 could show a decrease in block resistance.

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 PSLC294 outside of these recommendations may shorten its shelf life. Ink taken from the press should not be returned to the original container; store separately to avoid contaminating unused ink.

PSLC294 UV Litho Overprint Clear in 1-gallon (4/5 kilo) containers or smaller are useable for a period of at least 24 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. Contact Nazdar Technical Service at InkAnswers@nazdar.com, for any questions.

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.

PSLC294 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. 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.

Weathering / Outdoor Durability

Items printed with PSLC294 are not recommended for outdoor use.

Manufacturer’s Product Offering

Based on information from our raw material suppliers, PSLC294 is 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.

PSLC294 UV Litho Overprint Clear is supplied in gallon containers.

Item Number	Color
PSLC294	UV Litho Overprint Clear

Additives / Reducers

Item Number	Item Description
RE302	UV Reducer
RE308	UV Reducer (<i>flexibilizer</i>)

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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