

UV 1st Down Chrome ink is a UV screen ink used to produce a high sheen metallic effect for graphic applications. Available in gold and silver colors, this ink is intended to be printed directly onto the substrate, and then overprinted with transparent colors to provide a variety of special color effects.

Note: Substrates should be white. Colored substrates may result in issues with cure, adhesion, and block resistance and should be thoroughly tested prior to production.

SUBSTRATES Coated paper, most styrene, pressure sensitive vinyl, rigid vinyl, top coated polyester and treated fluted polypropylenes (see Additives section)

USER INFORMATION

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. See full disclaimer at the end of the document.

MESH 305-420 tpi (120-165 tpcm) monofilament polyester mesh for most applications

STENCIL Solvent resistant, UV ink compatible direct emulsions and capillary films

SQUEEGEE 70-90 durometer polyurethane squeegee

COVERAGE 3,300 – 3,800 square feet (305 - 350 square meters) per gallon depending upon ink deposit

PRINTING UV 1st Down Chrome ink must be printed directly onto the substrate and cannot be used to print over another ink.

UV 1st Down Chrome ink 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 viscosity, reducing print definition, film thickness and opacity.

Pretest to determine optimum printing performance for a particular set of over-print 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. Light filters are recommended.

CURE PARAMETERS UV 1st Down Chrome ink cures when exposed to a medium pressure mercury vapor lamp set at 200 watts per inch with millijoules (mJ) and milliwatts (mW) of:

120-150 mJ/cm² @ 600+ mW/cm² for UV 1st Down Chrome Silver FX1

150-180 mJ/cm² @ 600+ mW/cm² for UV 1st Down Chrome Gold FX2

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, poor block resistance, and residual odor.

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 condition and focus to the substrate.

The values mentioned above 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.

OVER-PRINT INKS

UV 1st Down Chrome ink can be over-printed with PowerPrint® 1600 UV Screen Ink Series and NSC UV Crystal Clear Transparent inks. Refer Technical Data Sheet for the over-print ink to determine its processing recommendations.

Note: UV 1st Down Chrome ink leafs slightly preventing complete adhesion to the over-printed inks with respect to scratch resistance once scored.

ADDITIVES

All additives should be thoroughly mixed into the ink before each use. Prior to production, test any additive adjustment to the ink.

Adhesion Promoter: Use NB80 UV Adhesion Promoter to enhance adhesion on treated fluted polypropylenes. Add up to 5% by weight. Improved adhesion will not be demonstrated for 24 hours, with full cross linking in 4-7 days. Ink mixed with NB80 UV Adhesion Promoter has a 4-8 hour pot life.

CLEAN UP

Screen Wash (Prior to Reclaim): Use IMS203 Economy Graphic Screen Wash or IMS207C Graphic Recirculating Wash

Press Wash (On Press): Use IMS301 Premium Graphic Press Wash

STORAGE

Store tightly covered at temperatures between 65°-90°F (18°-32°C). Ink taken from the press should not be returned to the original container; store separately to avoid contaminating unused ink.

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 Material Safety Data Sheet for further instructions and warnings.

UV 1st Down Chrome ink is a one-part, 100% solids UV-curable screen printing ink which does not contain N-vinyl-2-pyrrolidone (trade name V-Pyrol®).

ADHESION TESTING

Even when recommended UV energy output levels are achieved, it is imperative to check adhesion on a **cooled down** print:

1. Touch of ink surface – the ink surface will be smooth.
2. Scratch surface – the ink surface will resist hard scratching. Coated paper scratches easily, so use magnification to determine if scratches are ink only or ink and top layer of substrate.
3. Cross hatch tape test – 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, wait for 1 minute and rip off at a 180 degree angle. Ink should only come off in actual cut areas.

Note: UV 1st Down Chrome ink leafs slightly; it is normal for tape to pull off the top surface of the printed ink.

PRODUCT OFFERING

PACKAGING All items listed below are available in quart and gallon containers.

Stock Number	UV 1 st Down Chrome Colors
696535PS	UV 1 st Down Chrome Silver FX1
60001271PS	UV 1 st Down Chrome Gold FX2

PACKAGING Cleaners and Additives are available in quart and gallon containers.

Stock Number	Cleaners	Stock Number	Additives/Reducers
IMS203	Economy Graphic Screen Wash	NB80	UV Adhesion Promoter (quarts only)
IMS207C	Graphic Recirculating Wash		
IMS301	Premium Graphic Press Wash		

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®.

Based on information from our raw material suppliers, these products are formulated to contain less than 0.06% lead. If exact heavy metal content is required, independent lab analysis is recommended.

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