

PowerPrint[®] Fluorescent Series UV Screen Ink provides stable, pre-mixed fluorescent colors to be used for indoor graphics advertising applications on a wide range of plastics, coated papers and coated boards.

SUBSTRATES Styrene, rigid PVC, vinyls, acrylics, some coated papers and some coated cardstocks

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 These colors require special considerations due to their high pigment contents. Best results are achieved when printed through a mesh that offers more open area, such as a 305-355 (120-140 cm) mesh monofilament polyester mesh for most applications

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

SQUEEGEE 70-90 durometer polyurethane squeegee

COVERAGE 2,300 -3,500 square feet (215 - 325 square meters) per gallon depending upon ink deposit

PRINTING These inks have the tendency to settle; so high speed mixing is required 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, and film thickness. Pretest to determine optimum printing performance for a particular set of ink, substrate, screen, press, and curing variables/conditions.

CURE PARAMETERS PowerPrint[®] Graphic Fluorescent Screen ink cures when exposed to a medium pressure mercury vapor lamp set at 200 watts per inch with millijoules (mJ) and milliwatts (mW) of:
80-130 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.
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 readings with the UVICURE Plus, reduce the belt speed to less than 40 ft/min.
Note: Fluorescent colors fade with exposure to ultraviolet light. This includes outdoor exposure as well as UV reactor exposure. It is therefore recommended to adjust art so these colors are the final colors printed on any image.

INTER-PRINTING INKS

PowerPrint® Graphic Fluorescent Screen inks can be inter-printed with other Nazdar UV Screen inks, including:

- PowerPrint® 1600 UV Ink Series
- PowerPrint® Plus 1800 UV Ink Series
- PowerPrint® Banner 1900 UV Ink Series
- PowerPrint® Renew 1400 UV Ink Series

Refer to the Technical Data Sheet for the inter-printed ink to determine processing recommendations.

ADDITIVES

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

Reducer: Use RE302 UV Reducer to reduce the viscosity of these inks. Add up to 10% by weight.

Adhesion Promoter: Use NB80 UV Adhesion Promoter to further increase adhesion on rigid high density polyethylene and treated fluted polypropylene substrates. Add up to 5% by weight. Improved adhesion will be demonstrated after 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

Inks react to light and temperature. 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 PowerPrint® Graphic Fluorescent Screen Ink Material Safety Data Sheet for further instructions and warnings.

PowerPrint® Graphic Fluorescent Screen Ink is a one-part, 100% solids UV-curable screen printing ink and 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 and slick.
2. Thumb twist – the ink surface will not mar or smudge.
3. Scratch surface – the ink surface will resist scratching. Some vinyls and card stocks scratch easily, so use magnification to determine if scratches are ink only or ink and top layer of substrate.
4. 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.



POWERPRINT® FLUORESCENT SERIES GRAPHIC UV SCREEN INK

TECHNICAL DATA SHEET

WEATHERING / OUTDOOR DURABILITY

PowerPrint® Graphic Fluorescent Screen ink colors fade quickly with exposure to UV light and are not recommended for outdoor exposure.

PRODUCT OFFERING

COLOR CARD MATERIALS

The following is a list of screen printed samples available.

UV Color Card: shows the Standard Printing Colors, Pantone Matching System® Base Colors, Halftone Colors, Fluorescent Colors

PACKAGING / AVAILABILITY

All items listed below are inventoried items and available in gallon containers.

Stock Number	Fluorescent Colors	Stock Number	Fluorescent Colors
32510	Fluorescent Chartreuse	32560	Fluorescent Cerise
32520	Fluorescent Orange / Yellow	32570	Fluorescent Pink
32530	Fluorescent Orange	32580	Fluorescent Blue
32540	Fluorescent Orange / Red	32590	Fluorescent Green
32550	Fluorescent Red	32600	Fluorescent Magenta

PACKAGING / AVAILABILITY

All items listed below are inventoried items.

Additives/Reducers are available in liters and gallon containers.

Cleaners are available in gallon, 5 gallon, and 55 gallon containers.

Stock Number	Additives/Reducers	Stock Number	Cleaners
RE302	UV Reducer	IMS203	Economy Graphic Screen Wash
NB80	UV Adhesion Promoter (liters 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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