

NFX20's Graphic Transparent UV Screen inks provide a high color, high transparency for overprinting metallic effects or on clear substrates for POP / graphic applications. NFX20's Graphic Transparent UV Screen inks can be intermixed to expand your color offering.

SUBSTRATES Styrene, rigid vinyl, pressure sensitive vinyl, polycarbonates, some acrylics, coated papers, and 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 355tpi (140 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 3,200-4,000 square feet (295-370 square meters) per gallon depending upon ink deposit

PRINTING NFX20's Graphic Transparent UV Screen inks are 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 ink, substrate, screen, press, and curing variables/conditions.

CURE PARAMETERS NFX20's Graphic Transparent UV Screen inks cure when exposed to a medium pressure mercury vapor lamp set at 300 watts per inch with millijoules (mJ) and milliwatts (mW) of:
130-200 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.
"Undercuring" the ink may result in poor adhesion, block resistance, and higher 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.

CLEARS / VARNISHES Mixing Clear: Use NFX21Graphic Transparent Clear to reduce the density of colors.

INTERPRINTING INKS

NFX20's Graphic Transparent UV Screen inks are intended to overprint metallic effects on the substrates outlined in the 'Substrate' section. NFX20's Graphic Transparent UV Screen inks can overprint metallic effect using the following UV ink series:

- UV First Down Chrome Silver and UV First Down Chrome Gold UV inks
- PowerPrint® 1600 UV Ink Series
- PowerPrint® Plus1800 UV Ink Series
- PowerPrint® Banner1900 UV Ink Series
- PowerPrint® Renew1400 UV Ink Series

Refer Technical Data Sheet for the over-print ink to determine its processing recommendations.

Note: when overprinting metallic effects, pre-test to determine suitable inter-printing adhesion. Some metallic effects lead and significantly reduce adhesion performance.

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 RE310 UV Reducer to reduce the viscosity of these inks. Add up to 5% by weight.

Flexibilizer: Use RE308 UV Reducer to increase the flexibility of these inks. Add up to 10% by weight. The addition of RE308 UV Reducer could show a decrease in block resistance.

Adhesion Promoter: Use NB80 UV Adhesion Promoter to enhance adhesion on treated fluted-polypropylenes and some acrylics. 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 Graphics 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.

PROCESSING

Extreme Bending / Cutting: NFX20's Graphic Transparent UV Screen inks are not recommended for bending applications when printed with a heavy deposit or multiple layers. Any bending and cutting post printing applications should be thoroughly qualified prior to full scale production.

Background Color: Due to the high transparency of the NFX20's Graphic Transparent UV Screen inks, the background color will have significant effect on color of the end result and processing conditions.

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.

NFX20's Graphic Transparent UV Screen inks are 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 and slick.
2. Thumb twist – the ink surface will not mar or smudge.
3. Scratch surface – the ink surface will resist scratching.
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.

WEATHERING / OUTDOOR DURABILITY

Outdoor durability has not been determined at this time.

PRODUCT OFFERING

PACKAGING

All items listed below are available in gallon containers. These items are non-inventoried and made to order.

| Stock Number | Standard Printing Colors | Stock Number | Pantone Matching System® Base Colors |
|--------------|-----------------------------|--------------|--------------------------------------|
| NFX21 | Graphic Transparent Clear | NFX25 | Graphic Transparent Blue |
| NFX22 | Graphic Transparent Red | NFX26 | Graphic Transparent Green |
| NFX23 | Graphic Transparent Magenta | NFX27 | Graphic Transparent Yellow |
| NFX24 | Graphic Transparent Violet | NFX29 | Graphic Transparent Black |

PACKAGING

Additives/Reducers are available in liters or quarts. Contact customer service for availability. Cleaners are available in gallon, 5 gallon and 55 gallon containers.

| Stock Number | Additives/Reducers | Stock Number | Cleaners |
|--------------|------------------------------------|--------------|-----------------------------|
| NB80 | UV Adhesion Promoter (liters only) | IMS203 | Economy Graphic Screen Wash |
| RE308 | UV Reducer | IMS207C | Graphic Recirculating Wash |
| RE310 | UV Reducer | IMS301 | Premium Graphic Press Wash |



NFX20'S GRAPHIC TRANSPARENT UV SCREEN INK

TECHNICAL DATA SHEET

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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