NFX56 UV Magnetic Receptive Screen Ink

NFX56 UV Magnetic Receptive UV Screen Ink can be used on various substrates to produce a surface coating that will attract a magnet. The ink deposit, printed surface area, and thickness of the magnet contribute to the level of attraction. NFX56 UV Magnetic Receptive UV Screen Ink is only suitable for flat substrates; folding, flexing, etc. may cause cracking in the ink layer. The ink itself is non-magnetic. *(Previously referenced as 676856PS Magnetic Receptive UV Screen Ink.)*

Substrates

Styrene (PS)
Polycarbonate (PC)

Substrate Material(s) listed below may be Limited in Adhesion *(testing highly recommended for each print run)*
Coated paper / Coated cardstock

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.

Mesh

156-200 tpi (61-81 tpcm) monofilament polyester mesh for most applications
Coarser mesh counts and/or twill weave result in heavier ink deposit requiring additional cure output.

Stencil

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

Squeegee

70-90 durometer polyurethane squeegee.

Coverage

Depending upon ink deposit, the estimated coverage per gallon: 1,200 – 1,400 square feet (111 - 130 square meters) per gallon through a 156 mesh.
Reference www.nazdar.com/en-us/ColorStar for examples of coverage calculations.

Screen Printing

Standard items are formulated to be press ready. Thoroughly mix the ink prior to printing. Improper mixing can lead to inconsistent color and ink performance.

Multiple printed layers may be needed to achieve desired properties. Assure previous ink layer is properly cured before printing the next layer.

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

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. Leaving a container uncovered may result in the ink's surface forming a "skin", caused by reaction with ambient lighting. Keep containers covered.

Nazdar does not recommend inter-mixing this ink series with other inks or series.

Cure Parameters

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 and adhesion of subsequent ink layers.

Mercury Vapor UV Curing: Standard ink cures when exposed to a single medium pressure mercury vapor lamp emitting output millijoules (mJ) and milliwatts (mW) of:
130-180 mJ/cm² @ 600+ mW/cm²
Overprinting dark backgrounds will adversely affect the cure results.

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 mJ readings with the UVICURE® Plus, reduce the belt speed to less than 40 ft/min.

Processing
Overprinting: UV Magnetic Receptive Screen Ink can be overprinted with Nazdar 1600 UV Screen Ink Series. Overprinting the magnetic receptive surface decreases magnetic attraction, please pretest.
Finishing: The ink deposit is very rigid. Care should be taken to prevent rolling, bending or folding. It is not recommended to die cut or guillotine cut through the ink surface. When guillotine cutting, stacks should be very short to prevent potential bending

Adhesion Testing
When recommended UV energy output levels are achieved, checking the degree of cure on a **cooled down** print is imperative:
- Touch of ink surface – the ink surface should be smooth.
- Thumb twist – the ink surface should not mar or smudge.
- Scratch surface – the ink surface should resist scratching.
- Cross hatch tape test – per the ASTM D-3359 method, 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, and rip off at a 180 degree angle. Ink should only come off in actual cut areas.

Full adhesion characteristics at proper cure levels are demonstrated within: 24 hours

Cleanup
For screen cleaning, similar products to those listed below may be used.

Screen Wash (Prior to Reclaim): Use IMS201 Premium Graphic Screen Wash or IMS203 Economy Graphic Screen Wash
Press Wash (On Press): Use IMS301 Premium Graphic Press Wash

General Information
Handling
Refer to the SDS for recommendations on handling.
Wear gloves and barrier cream to prevent direct skin contact. Safety glasses are suggested in areas where ink may be splashed. If product 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.

This ink series 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).

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.

Standard items supplied in 1-gallon (4/5 kilo) containers or smaller. Useable for a period of at least **24 months** from the date of manufacture.
Standard items supplied in 2 to 5-gallon (6-20 kilo) containers: Useable for a period of at least **6 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.

Standard Color Range

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.

Color Card Materials

The following is a list of available literature representing this ink series.
- Magnetic Receptive UV Screen Ink (LIT0401): shows the UV Magnetic Receptive Ink printed on the back of offset printed graphics that are attracted to a magnetic background.

Packaging / Availability

Contact your Nazdar distributor for product availability and offering.

Item Type	Item Number	Item (or Color) Description
Standard Colors	NFX56	Magnetic Receptive
Cleaners	IMS203	Economy Graphic Screen Wash
Cleaners	IMS207C	Graphic Recirculating Wash
Cleaners	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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