

# Nazdar NFX57 UV High Gloss Anti-Graffiti Clear Screen Ink

**NFX57 UV High Gloss Anti-Graffiti Clear is designed to be used as an overprint clear to allow graffiti to be removed from the surface and to protect the underlying graphics from cleaners. This product is resistant to cleaners and solvents to allow for easy removal of graffiti. NFX57 is designed to be compatible over several inks; test for adhesion and printability over inks before use. Properly cured, this clear will be resistant to most common cleaning fluids; test for resistance properties prior to full scale production. (Formerly 664645PS High Gloss Anti-Graffiti)**

## Substrates

Pressure sensitive vinyl (PVC)  
Coated paper / Coated cardstock  
Polycarbonate (PC)  
Static Cling (PVC)  
Rigid vinyl (PVC)

*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

305-355 tpi (120-140 tpcm) monofilament polyester mesh.

## Stencil

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

## Squeegee

70-80 durometer polyurethane squeegee.

## Coverage

Depending upon ink deposit, the estimated coverage per gallon: 3,200 – 4,200 square feet (295 - 390 square meters)  
Reference [www.nazdar.com/en-us/ColorStar](http://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.

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.

Pretest to determine optimum printing parameters 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; 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.

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Mercury Vapor UV Curing: this series has been optimized for 395nm LED curing; however, most colors cure when exposed to a single medium pressure mercury vapor lamp emitting output millijoules (mJ) and milliwatts (mW) of:  
90-110 mJ/cm<sup>2</sup> @ 600+ mW/cm<sup>2</sup> UVA

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

Cleaning the Printed Surface: The printed ink surface can be cleaned with 668550KI Graffiti Remover. Any graffiti remover products should be pre-qualified prior to full scale print production.

## Inter-Printable

The following graphic ink series can be used with NFX57 Anti-Graffiti Clear on their appropriate substrates. Shop conditions vary; pretest the inter-printability of the graphic ink and NFX57 combination to determine optimum performance characteristics for a particular set of substrate, screen, press, and curing conditions

- Nazdar 1600 UV Ink Series
- Nazdar 1900 UV Ink Series
- Nazdar 3600 UV Ink Series
- Nazdar 3900 UV Ink Series
- Nazdar 4000 UV Ink Series
- Nazdar 4200 UV Ink Series

## 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: 8 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

## Ink Modifications

### Additives

The market specific performance properties of this ink series / ink item 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. Inks containing additives should not be mixed with other inks.

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Example for additives: Ink at 100g with 8% of an additive is calculated as: 100g ink + 8g additive = 108g total

### Reducer / Thinner

Use RE307 UV Reducer to reduce the viscosity of this ink. Add up to 10%.

## General Information

### Handling

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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.

Consult the applicable Safety Data Sheet (SDS / MSDS) for further instructions and warnings.

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.

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.

## Packaging / Availability

Contact your Nazdar distributor for product availability and offering.

Item Type	Item Number	Item (or Color) Description
Clears / Varnishes	NFX57	UV High Gloss Anti-Graffiti Clear
Series Specific Item	668550KI	Graffiti Remover
Additives	RE307	UV Reducer
Cleaners	IMS201	Premium Graphic Screen Wash
Cleaners	IMS203	Economy Graphic Screen 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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