

Color Vue 8800 Series Screen Inks have been formulated specifically for automotive, membrane overlay and appliance decorating applications, where strong transparent colors with lens-like clarity and high opacity colors are required. The 8800 Series is compatible with most acrylic transfer adhesives.

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Substrates

- Polycarbonate
- Some print-treated polyester

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.

User Information

Mesh

195-330 tpi (77-130 tpcm) monofilament polyester mesh for most applications.

Stencil

Use direct emulsions and capillary films which are solvent resistant.

Squeegee

70-80 durometer polyurethane squeegee.

Coverage

Estimated 1,200 – 1,800 square feet (112-167 square meters) per gallon depending upon ink deposit. Reference www.nazdar.com for examples of coverage calculations.

Printing

Add only enough ink to the screen to be able to print for 5-10 minutes. Add additional ink in small increments throughout the print run to maintain screen stability. 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.

Nazdar does not recommend inter-mixing of 8800 Series with other inks besides the 8800 Series and System 2 Series. Prints that would come into contact with adhesives should use at least 60% of 8800 Series when mixed with System 2 Series.

Drying / Curing Parameters

8800 Series dries by solvent evaporation and dries at temperatures of 130° - 150°F (54° - 66°C). Good air circulation is necessary to remove the vaporized solvents. Multiple layers of ink may require longer drying times than a single layer; flood coats will take longer to dry compared to fine copy.

Clears / Varnishes

<u>Mixing Clear / Metallic Mixing Clear:</u> Use 8826 Mixing Clear to reduce the density of colors or as a clear base for specialty additives such as Metallic additives.

<u>Overprint Clear:</u> Use 8827S Satin Overprint Clear for first surface printing to provide a low gloss finish.

Common Performance 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.

Example for additives: Ink at 100g with 8% of an additive is calculated as:

100g ink + 8g additive = 108g total

<u>Reducer:</u> Use RE180 Thinner to reduce the viscosity of these inks. Add up to 20% by weight.

<u>Flattening Powders:</u> Use 8848 Flatting Paste to produce a satin finish. Add up to 20% by weight.

<u>Retarder:</u> Use RE183 Retarder to slow the drying process and increase ink stability on the press.



Add up to 15% by weight. RE180 Thinner and RE183 Retarder may be added to the same ink.

Cleanup

<u>Screen Wash (Prior to Reclaim):</u> Use IMS201 Premium Graphic Screen Wash, IMS203 Economy Graphic Screen Wash, or IMS206 Graphic Auto Screen Wash.

<u>Press Wash (On Press):</u> Use IMS301 Premium Graphic Press Wash.

Storage

Store closed containers at temperatures between 65°-78°F (18°-25°C). Ink taken from the press should not be returned to the original container; store separately to avoid contaminating unused ink.

Processing

<u>Die Cutting/Embossing/Adhesive Lamination:</u>
Make sure the ink is thoroughly dry prior to any post print processing.

General Information

Ink Handling

All personnel mixing and handling these products must wear gloves and eye protection. Clean up spills immediately. If ink does come in contact with skin, wipe ink off with a clean, dry, absorbent cloth (do not use solvent or thinner). Wash the affected area with soap and water. Consult the applicable <u>Safety Data Sheet</u> (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).

Adhesion Testing

- 1. Touch of ink surface the ink surface should be smooth.
- 2. Thumb twist the ink surface should not mar or smudge.
- 3. 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.

Manufacturer's Product Offering

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.

Standard Printing Colors

Standard Printing Colors have excellent opacity and flow characteristics.

Single Pigment Toners

The Transparent Colors are specially formulated for lens-like clarity and can be used in color matches, or let down with mixing clear.

Pantone Matching System® Base Colors

Pantone Matching System Base Colors are used to simulate the Pantone® Formulation Guide. These inks are press ready, can be used in matches to achieve Pantone color simulations, or let down with mixing clear. ColorStar® Color Management System software uses Pantone Matching System Base Colors to match Pantone colors. Blend formulations are also available at www.nazdar.com using ColorStar On-Line.

<u>360 Series Colors:</u> 88360-88369 colors are formulated to have no white or opaque pigments. This allows the colors to be more vibrant and allows for a better match of intense and darker colors.

Special Effect Pigments

When inks are to be printed with a special effect color, all ink layers must be evaluated for intercoat adhesion and suitability with adhesives before proceeding with the production run. Pigments may settle in the container; prior to printing, thoroughly mix the ink.

The following special effect pigments may be added to 8800 Series. Contact Nazdar for the item number(s) and availability of special effect products. Technical Data Sheets for each of the following special effect pigments can be found at www.nazdar.com.

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<u>Metallic Silver (aluminum):</u> Add up to 8% by weight.

Metallic Gold (bronze): Add up to 15% by weight.

Chemical reactions in metallic inks may result in viscosity, color and printability changes over time; due to this, mix only enough metallic ink to be used the same day.

<u>Pearlescent / Interference:</u> Add up to 20% by weight.

Multi-Chromatic: Add up to 10% by weight.

Color Card Materials

The following is a list of available screen printed samples of the 8800 Series.

<u>Conventional Color Card (CARD375)</u>: shows the Standard Printing Colors and Pantone Matching System Base Colors.

<u>Special Effects Color Card (CARDSPL):</u> shows various special effect pigments mixed with clear.

Packaging / Availability

Contact your Nazdar distributor for product availability and offering.

'LF' Item Numbers

Colors with an item number containing 'LF' indicate a lead-free alternative that replaced a lead containing color. All colors listed in this document are lead-free.

Standard Ink Items

Standard ink items listed below are inventoried in 1 kilogram and/or gallon containers.

Item Number	Color
88LF10	Primrose Yellow
88LF11	Lemon Yellow
88LF12	Medium Yellow
8819	Fire Red
8821	Peacock Blue
8822	Ultra Blue
8824	Tinting Black
8825	White
8826	Mixing Clear
8827S	Satin Overprint Clear
8852	Super Opaque Black
8875	Super Opaque White
8879	High Intensity Black

Transparent Colors (1 kilogram only)

Item Number	Color
88PB10	Trans Primrose Yellow
88PB12	Trans Medium Yellow
88PB13	Trans Green
88PB18	Trans Red (BS)
88PB22	Trans Blue
88PB24	Dead Front Black
88PB60	Ruby Red

Single Pigment Toners

Item Number	Color
8881	Orange Toner
8882	Carmine Toner
8883	Magenta Toner
8884	Maroon Toner
8886	Blue Toner (GS)
8888	Violet Toner

Non-Standard Ink Items

Non-Standard ink items listed below are special order, non-inventoried colors which may require additional lead time. These items are available in gallon containers.

Printing Colors

Item Number	Color
88LF13	Emerald Green
88LF20	Brilliant Orange

Pantone Matching System® Base Colors

Item Number	Color
88358	Tinting White
88359	Tinting Black
88360	Orange
88361	Yellow
88362	Warm Red
88363	Rubine Red
88364	Rhodamine Red
88365	Purple
88366	Violet
88367	Reflex Blue
88368	Process Blue
88369	Green

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Additives / Reducers

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Item Number	Color
8848	Flatting Paste
RE180	Thinner
RE183	Retarder

Cleaners / Clean Up

Item Number	Color
IMS201	Premium Graphic Screen Wash
IMS203	Economy Graphic Screen Wash
IMS206	Graphic Auto Screen Wash
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 operatina 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[®].

Nazdar Ink Technologies Offices Worldwide

Nazdar Ink Technologies - World Headquarters

8501 Hedge Lane Terrace Shawnee, KS 66227-3290 USA Toll Free US: 866-340-3579 Tel: +1 913-422-1888 Fax: +1 913-422-2296

E-mail: NazdarOrders@nazdar.com

Technical Support E-mail: lnkAnswers@nazdar.com

Nazdar Limited - EMEA Battersea Road, Heaton Mersey Stockport, England SK4 3EG Tel: + (44) 0-161-442-2111

Fax: + (44) 0-161-442-2001

UK Technical Service E-mail: technicalservicesuk@nazdar.com

Nazdar – Asia Pacific 11 Changi North Street 1 #03-03/04

Singapore 498823 Tel: +65-63854611 Fax: +65-65433690

E-mail: aspac@nazdar.com