Nazdar 8900 Series SuperSet Thermo Set Screen Ink

NAZDAR
INK TECHNOLOGIES

v 13 EN
Ref: v 12 EN

Nazdar 8900 Series SuperSet Thermo-Set is a high solids, high gloss solvent-based screen ink. A single component, cross linked product, 8900 Series is formulated for printing on pre-coated metal surfaces. Properly cured, 8900 Series exhibits excellent resistance to many solvents, chemicals, humidity and abrasion. 8900 Series is specifically designed to provide maximum flexibility and intercoat adhesion.

Substrates

- Pre-coated metal substrates
  Coatings include:
  Enamel
  Polyester
  Acrylic
  Vinyl
  Epoxy

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

230 - 305 tpi (90 – 120 tpcm) monofilament polyester mesh for most applications.

Stencil

Use direct emulsions or capillary films which are solvent resistant.

Squeegee

70 – 80 durometer polyurethane squeegee.

Coverage

Estimated 1,200 – 1,800 square feet (111 - 167 square meters) per gallon depending upon ink deposit. Reference www.nazdar.com for examples of coverage calculations.

Printing

When using 8900 Series 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. 8900 Series may need to be thinned to achieve proper ink flow (see additives section). 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 drying 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 drying variables/conditions.

Nazdar does not recommend inter-mixing of 8900 Series with other inks besides the 8900 Series.

Drying

Once the metal substrate has reached the required temperature listed in the schedule below, maintain that temperature for the appropriate time per the schedule. This will vary according to the thickness of the substrate and the specific drying equipment used. Proper cure is achieved when the ink will resist 30-50 double rubs using methyl ethyl ketone (MEK), showing no loss of gloss or degradation to the printed ink. Slight color transfer to the rubbing cloth or cotton swab is acceptable as long as the print surface retains its initial characteristics.

Temperature	Time
275°F (136°C)	15 Minutes
300°F (150°C)	8 Minutes
325°F (164°C)	6 Minutes
350°F (178°C)	4 Minutes
375°F (192°C)	3 Minutes
400°F (206°C)	2 Minutes

Clears / Varnishes

Mixing Clear: Use 8926 Mixing Clear to reduce the density of colors or as a clear base for specialty additives such as Metallics.

Overprint Clear: Use 8927 Overprint Clear to provide added surface protection, chemical resistance and increase durability.

Solvent-Based Screen Ink

NAZDAR
INK TECHNOLOGIES

Common Performance Additives

8900 Series May require the addition of Thinner for proper flow characteristics. When required, any additives should be thoroughly mixed into the ink 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

Reducer: Use 9050 Retarder Thinner to reduce the viscosity of these inks. Add up to 15% by weight.

Gloss / Flattening Powders / Improved Slip: Use 8948 Flattening Paste to reduce gloss. Add up to 20%.

Cleanup

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

Press Wash (On Press): Use IMS301 Premium Graphic Press Wash.

Storage / Shelf Life

Store closed containers at temperatures between 65°-90°F (18°-32°C). Storing products outside of these recommendations may shorten their shelf life. Ink taken from the press should not be returned to the original container; store separately to avoid contaminating unused ink.

Standard 8900 Series items are useable for a period of at least 48 months from the date of manufacture. To obtain the official shelf life letter, Contact Nazdar Technical Service at InkAnswers@nazdar.com or see contact listing at the end of this document.

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 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).

Adhesion Testing

Once ink cools:

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.
4. 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.

"LF" Item Numbers

Colors with an item number containing "LF" are lead-free alternatives that replaced a lead containing color. All Nazdar manufactured inks are lead-free.

Special Effect Pigments

When inks are to be printed with a special effect color, all ink layers must be evaluated for intercoat adhesion 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 8900 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.

Solvent-Based Screen Ink

Metallic Silver (aluminum): Add up to 8% by weight. **Note:** Only mix enough metallic ink for same day use. Chemical reactions to the metallic pigment may cause viscosity and color change if allowed to sit in the ink over time.

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

Color Card Materials

The following is available screen printed samples of the 8900 Series.

Conventional Color Card (CARD375): shows the Standard Printing Colors.

Packaging / Availability

Contact your Nazdar distributor for product availability and offering.

Standard Ink Items

Check with your distributor for available container size.

Printing Colors

Item Number	Color
89LF10	Primrose Yellow
89LF11	Lemon Yellow
89LF12	Medium Yellow
89LF13	Emerald Green
89LF19	Fire Red
89LF20	Brilliant Orange
8921	Peacock Blue
8922	Ultra Blue
8924	Black
8925	White
8926	Mixing Clear
8927	Overprint Clear
8975	Super Opaque White

Non-Standard Ink Items

Non-Standard ink items listed below are special order, non-inventoried colors which may require additional lead time. Check with your distributor for available container size.

Printing Colors

Item Number	Color
89LF18	Scarlet Red
89410	Yellow
89411	Warm Red
89417	Rubine Red
89418	Rhodamine Red
89422	Reflex Blue
89433	Purple
89440	Process Blue
89441	Green
8989	Red Toner

Additives / Reducers

Item Number	Description
9050	Retarder Thinner
8948	Flattening Paste

Cleaners / Clean Up

Item Number	Description
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 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®.

Nazdar Ink Technologies Offices

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: InkAnswers@Nazdar.com

Nazdar Limited – England
Battersea Road, Heaton Mersey
Stockport, England SK4 3EE
Tel: + 44 (0) 161-442-2111
Fax: + 44 (0) 161-442-2001
EMEA Technical Service E-mail:
technicalservicesuk@nazdar.com

Nazdar – Asia Pacific
11 Changi North Street 1
#03-03/04
Singapore 498823
Tel: +65 6385 4611
E-mail: aspac@nazdar.com

v 13 EN

Ref: v 12 EN

Solvent-Based Screen Ink