Technical Data Sheet Nazdar DA Series Nylon and Flock Screen Ink



DA Series is a two-part polymerizing screen ink that has been formulated to be extremely flexible and resistant to laundering and dry cleaning as well as ironing. DA Series is a highly opaque, extremely flexible and elastic ink for printing and flocking most synthetic and natural textiles, including waterproof nylon and other synthetics having a finish. (Pre-testing of waterproof nylon is recommended.)

Substrates

Cotton Cotton blends Synthetics Waterproof nylon Finished synthetics

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

110-200 tpi (43-79 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

Depending upon ink deposit, the estimated coverage per gallon: 500-600 square feet (46-56 square meters) Reference www.nazdar.com/en-us/ColorStar for examples of coverage calculations.

Screen Printing

DA Series ink must be catalyzed with DA176 Catalyst before printing (see Common Performance Additives). 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 this ink series with other inks or series.

Drying / Curing Parameters

DA Series ink will air-dry overnight for handling. DA Series may also be heat dried at 200°F (93°C) for 10 minutes. After drying, full crosslinking will be achieved in approximately seven days at ambient room temperature and low humidity (40% or less). The inks resistance to washing and dry cleaning will improve over that time. DA Accelerator may be used to reduce the cure time (see Additives). Multiple layers of ink may require longer drying times than a single layer.

Cleanup

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

<u>Screen Wash (Prior to Reclaim)</u>: Use IMS401 Premium Textile Screen Wash. Press Wash (On Press): Use IMS501 Premium Textile Press Wash.

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Ink Modifications

Clears / Varnishes

Mixing Clear: use to reduce the density of colors.

Additives

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 / Thinner

Use the following item(s) to reduce the viscosity of these inks. Over reduction can reduce print definition, film thickness and adversely affect cure.

Use RE188 Thinner to reduce the viscosity of these inks. Add up to 20%.

Catalyst

DA176 Catalyst must be added at a ratio of 3.5 parts ink to one part catalyst before printing. Catalyzed ink has a 3 to 5 hour pot life. DA176 Catalyst is sensitive to moisture and should be stored in a cool dry place.

Accelerator

Use <u>DA1882 DA Accelerator</u> to reduce the curing time of the DA Series. Add 2 grams of accelerator to one quart of ink. Accelerator will reduce the catalyzed ink pot life to 2-3 hours.

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.

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.

DA176 Catalyst is sensitive to moisture and should be stored in a cool dry place.

Standard items useable for a period of at least **48 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.

Standard Printing Colors

Standard Printing Colors: have excellent opacity and flow characteristics. These colors are intended to work as supplied.

LF Colors

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

Color Card Materials

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- CARDDA Color Selector Guide: shows the Standard Printing Colors in the DA Series.

Packaging / Availability

Contact your Nazdar distributor for product availability and offering.

Item Type	Item Number	Item (or Color) Description
Standard Colors	DALF104	Bright Red
Standard Colors	DA111	Black
Standard Colors	DA112	White
Standard Colors	DALF124	Orange
Standard Colors	DALF134	Medium Yellow
Standard Colors	DALF142	Emerald Green
Standard Colors	DA152	Light Blue
Standard Colors	DA156	Brilliant Blue
Standard Colors Clears / Varnishes	DA170	Clear
Additives	DA176	Catalyst
Additives	DA1882	DA Accelerator
Additives	RE188	Thinner
Cleaners	VF184	Screen Wash
Cleaners	IMS401	Premium Textile Screen Wash
Cleaners	IMS501	Premium Textile 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 has been the use of this product. product is limited to the value of the product purchased from Nazdar®.

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