Technical Data Sheet

Nazdar AquaSafe 2700 Series All Purpose Screen Ink



v 9 EN Ref: v 8 EN

AquaSafe 2700 Series All Purpose Screen Ink is a water-based ink that produces a glossy ink film, offers good weather resistance and is flexible enough for shallow draw (2 to 4 inches) vacuum forming.

Substrates

- Coated paper
- Cardboard
- Pressure sensitive vinyl
- Top-coated polyester
- Static cling
- Polycarbonate
- · Some coated metal
- Styrene

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

180-305 tpi (71-120 tpcm) monofilament polyester mesh for most applications.

Stencil

Use direct emulsions and capillary films which are water resistant.

Squeegee

70-90 durometer polyurethane squeegee.

Coverage

Estimated 2,000 – 3,000 square feet (185 - 278 square meters) per gallon depending upon ink deposit. Reference www.nazdar.com for examples of coverage calculations.

Printing

2700 Series ink may be thinned to achieve proper ink flow (see Additives section). Thoroughly mix the ink prior to printing.

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 variables/conditions.

Nazdar does not recommend inter-mixing of 2700 Series ink with other inks besides the 2700 Series ink.

Drying Parameters

2700 Series ink dries by evaporation in 20-30 minutes depending on temperature and humidity. Jet dry at 150°- 170°F (66°- 77°C) for approximately 30-45 seconds using maximum air flow through the oven. Adequate cooling may be necessary to avoid blocking problems when stacked.

Clears / Varnishes

<u>Overprint & Mixing Clear:</u> Use 2727 Overprint Clear to reduce the density of colors or as an overprint clear. If foaming or flow issues are experienced during printing, add additional thinner until required flow-out is achieved.

Common Performance Additives

The market specific performance properties of the 2700 Series ink 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.

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

100g ink + 8g additive = 108g total

Thinner: Use 2732 Thinner to reduce the viscosity of these inks. Add up to 10% by weight. Adding more than 10% thinner will raise the VOC level above 3.5 lbs per gallon. If the ink dries too slowly, use water instead of 2732 Thinner to reduce the viscosity. Add up to 15% by weight.

<u>Retarder:</u> Use RE192 Retarder to slow drying times. Add up to 10% by weight.

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<u>Adhesion Promoter:</u> Use AQ58 Aquacat to enhance adhesion on to coated metal and flat polyolefin stock. Add up to 10% by weight. Ink mixed with # UV Adhesion Promoter has a 6-8 hour pot life.

Gloss / Flattening Powders / Improved Slip: Use 2748 Flattening Paste to reduce gloss, improve slip, and prevent blocking on highly plasticized substrates and card stocks. Add up to 20% by weight.

Cleanup

<u>Screen Wash (Prior to Reclaim):</u> Use 2537 Screen Wash or 2738 Heavy Duty Screen Wash.

Press Wash (On Press): Use IMS503 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.

General Information

Ink Handling

Wear gloves and barrier cream to prevent direct skin contact. Safety glasses are suggested in areas where ink may be splashed. If ink 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 <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

- 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. These colors are intended to work as supplied.

Toners

Toners are highly concentrated, clean transparent colors. These inks are press ready and also can be used in color matches.

Packaging / Availability

Contact your Nazdar distributor for product availability and offering.

Standard Ink Items

Standard ink items listed below are inventoried in gallon containers.

Printing Colors

Item Number	Color
2711	Lemon Yellow
2712	Medium Yellow
2713	Emerald Green
2719	Fire Red
2720	Brilliant Orange
2721	Peacock Blue
2722	Ultra Blue
2724	Black
2727	Overprint Clear
2775	Super Opaque White

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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.

Toners

Item Number	Color
2782	Carmine Toner
2783	Magenta Toner
2784	Maroon Toner
2785	Green Toner
2786	Blue Toner (GS)
2787	Blue Toner (RS)
2788	Violet Toner

Printing Colors

Item Number	Color
2710	Primrose Yellow
2718	Scarlet Red

Additives / Reducers

Item Number	Description
2748	Flattening Paste
2732	Thinner
RE192	Retarder
AQ58	Aquacat

Cleaners / Clean Up

Item Number	Description
2537	Screen Wash
2738	Heavy Duty Screen Wash
IMS503	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

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