Nazdar 6100 Series Fast Dry Enamel Screen Ink

6100 Series Fast Dry Enamel Screen Ink is a solvent-based ink developed for use on flame-treated polyethylene containers, fiber drums and other hard-to adhere-to surfaces. 6100 Series has a built-in catalyst that accelerates curing and offers excellent resistance to soaps and detergents.

Substrates

Treated polyethylene containers (PE)
Fiber Drums

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

200-305 tpi (78-120 tpcm) monofilament polyester mesh or stainless steel 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: 900 – 2,500 square feet (83 - 232 square meters)
Reference www.nazdar.com/en-us/ColorStar for examples of coverage calculations.

Screen 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 this ink series with other inks or series.

Drying / Curing Parameters

Will air dry in 30-60 minutes. Force drying at 180°F (82°C) for about 5 minutes will make the ink film tack free. Good air circulation is necessary to remove the vaporized solvents. Multiple layers of ink may require longer drying times than a single layer. Drying times are dependent on ink deposit and air flow.

Adhesion Testing

- 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.

Cleanup

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

Screen Wash (Prior to Reclaim): IMS202 Universal Graphic Screen Wash 2555 Screen Wash

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

Ink Modifications

Clears / Varnishes
Mixing Clear/Metallic Clear: use to reduce the density of colors or as a clear base for specialty additives such as Metallic additives.

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.
5560 Fast Thinner: add up to 15%.

Retarder
Use the following item(s) to optimize on screen stability in hot environmental conditions.
9050 Retarder: add up to 5%.

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.
Standard items useable for a period of at least **48 months** from the date of manufacture.

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 over a variety of substrates.

Pantone Base Colors
Pantone Matching System Base Colors are used to simulate the Pantone® Formulation Guide when printed on a white substrate. These inks are press ready, can be used in matches to achieve Pantone color simulations, or let down with mixing clear.

60 Series Colors: 61-69 colors have a high pigment concentration. These colors are formulated to have some white pigment or opaque pigment to increase opacity.

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. To maximize intercoat adhesion, specialty colors should be printed as late as possible in the print sequence.
Pigments may settle in the container; prior to printing, thoroughly mix the ink.

The following special effect pigments may be added to the ink. Contact Nazdar for the item number(s) and availability of special effect products or they can be found at www.nazdar.com.

Metallic Silver (aluminum), add up to: 8%
Metallic Gold (bronze), add up to: 15%
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.

Pearlescent / Interference, add up to: 20%
Multi-Chromatic, add up to: 10%
Phosphorescent, add up to 20%

Fluorescents, add up to: 25%
Fluorescent colors fade quickly with exposure to ultraviolet light.

Color Card Materials

- Conventional Color Card (CARD375): shows the Standard Colors, Pantone Matching System Base Colors, and Halftone Colors.
- Special Effects Color Card (CARDSPL): shows various special effect pigments mixed with clear

Packaging / Availability

Contact your Nazdar distributor for product availability and offering.

Item Type	Item Number	Item (or Color) Description
Standard Colors	6110	Primrose Yellow
Standard Colors	6111	Lemon Yellow
Standard Colors	6112	Medium Yellow
Standard Colors	6119	Fire Red
Standard Colors	6120	Brilliant Orange
Standard Colors	6121	Peacock Blue
Standard Colors	6122	Ultra Blue
Standard Colors Clears / Varnishes	6126	Mixing Clear
Standard Colors	6152	Super Opaque Black
Standard Colors	6175	Super Opaque White
Pantone Base Colors	6158	Tinted White
Pantone Base Colors	6159	Tinting Black
Pantone Base Colors	6160	Orange
Pantone Base Colors	6161	Yellow
Pantone Base Colors	6162	Warm Red
Pantone Base Colors	6163	Rubine Red
Pantone Base Colors	6164	Rhodamine Red
Pantone Base Colors	6165	Purple
Pantone Base Colors	6166	Violet
Pantone Base Colors	6167	Reflex Blue
Pantone Base Colors	6168	Process Blue
Pantone Base Colors	6169	Green
Additives	5560	Fast Thinner
Additives	9050	Retarder
Cleaners	2555	Screen Wash
Cleaners	IMS202	Universal 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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