

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

- Fiber drums
- Treated polyethylene containers

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

200-305 tpi (80-120 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 900 – 2,500 square feet (83 - 232 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 6100 Series with other inks besides the 6100 Series.

Drying Parameters

6100 Series 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.

Clears / Varnishes

Mixing Clear / Metallic Mixing Clear: Use 6126 Mixing Clear to reduce the density of colors or as a clear base for specialty additives such as Metallic additives.

Overprint Clear: Use 6127 Overprint Clear to provide added surface protection. Overprint only after the printed colors are thoroughly dried.

Common Performance Additives

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:

$$100\text{g ink} + 8\text{g additive} = 108\text{g total}$$

Reducer: Use 5560 Fast Thinner to reduce the viscosity of these inks and maximize flow characteristics. Add up to 15% by weight.

Retarder: Use 9050 Retarder to optimize on screen stability in hot environmental conditions. Add up to 5% by weight.

Cleanup

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

Press Wash (On Press): 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.

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

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.

Pantone Matching System® Base Colors

Pantone Matching System Base Colors are used to simulate the Pantone® Formulation Guide. These

colors can be used as supplied, 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.

60 Series Colors: 6160-6169 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. Pigments may settle in the container; prior to printing, thoroughly mix the ink.

The following special effect pigments may be added to 6100 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.

Metallic Silver (aluminum): 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.

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

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

Phosphorescent: Add up to 20% by weight.

Fluorescents: Add up to 25% by weight.

Fluorescent colors fade quickly with exposure to ultraviolet light.

Color Card Materials

The following is a list of available screen printed samples of the 6100 Series.

Conventional Color Card (CARD375): shows the Standard Printing Colors, and Pantone Matching System Base Colors.

v 5 EN
 Ref: v 5 EN

Solvent-Based Screen Ink

Nazdar 6100 Series Fast Dry Enamel Screen Ink

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

Packaging / Availability

Contact your Nazdar distributor for product availability and offering.

v 5 EN

Ref: v 5 EN

Standard Ink Items

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

Printing Colors

Item Number	Color
6110	Primrose Yellow
6111	Lemon Yellow
6112	Medium Yellow
6119	Fire Red
6120	Brilliant Orange
6121	Peacock Blue
6122	Ultra Blue
6126	Mixing Clear
6127	Overprint Clear
6152	Super Opaque Black
6175	Super Opaque White

Pantone Matching System® Base Colors

Item Number	Color
6158	Tinting White
6159	Tinting Black
6160	Orange
6161	Yellow
6162	Warm Red
6163	Rubine Red
6164	Rhodamine Red
6165	Purple
6166	Violet
6167	Reflex Blue
6168	Process Blue
6169	Green

Additives / Reducers

Item Number	Color
5560	Fast Thinner
9050	Retarder

Solvent-Based Screen Ink

Cleaners / Clean Up

Item Number	Color
2555	Screen Wash
IMS202	Universal Graphic 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®.

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