



Screen Printing on Rowmark Material

For screen printing, Rowmark recommends the following inks and settings:

Ink: Nazdar 9700 series
Thinner: Nazdar RE 180
Ink Mix: 10:1 ink to thinner ratio

Mix ink and thinner well and apply to plastic. Allow to cure 24-36 hours at room temperature.

The next four pages of this document are technical information from Nazdar on their 9700 series inks.



9700 SERIES ALL PURPOSE SCREEN INK

TECHNICAL INFORMATION AND APPLICATION INSTRUCTIONS

- SUBSTRATES** Styrene, coated paper and card stock, rigid vinyl, synthetic stocks and plastics.
- END USES** Indoor and outdoor POP advertising and display applications requiring two to three years durability.

PRODUCT INFORMATION

9700 Series All Purpose Screen Ink is a high gloss, solvent-based screen ink formulated to perform on a wide variety of substrates, such as paper, card stock, polystyrene, vinyl, Tyvek[®], coated polyester, rigid vinyl, acrylic and many synthetic paper stocks. The 9700 Series comes in a wide range of opaque and transparent Nazdar colors including Toners, High Density Halftone Colors, and Pantone Matching System[®] Base Colors.

APPLICATION INFORMATION

- MESH** 230-355 monofilament polyester, 305-355 for halftone reproduction.
- STENCIL** Direct emulsions and capillary films that are solvent resistant.
- SQUEEGEE** 70-80 durometer polyurethane blades as well as multi-durometer blades that produce an even ink deposit.
- COVERAGE** 1,400-2,000 square feet per gallon depending on mesh, squeegee, substrate and press mechanics.
- PRINTING** 9700 Series may be thinned up to 20% by weight to achieve proper ink flow. Always mix well prior to each use. Use RE180 Thinner or a blend of RE180 Thinner and 9731 Retarder to slow drying time. Shop conditions vary; it is recommended to pretest the ink and additive combination to determine optimum printing performance for a particular set of substrate, screen, press and drying oven.
- DRYING** 9700 Series inks will air dry in 15-20 minutes at normal room temperature. Force drying is achieved in 40-60 seconds at 90°-150°F (32°-66°C). It is important to have good air flow to help remove solvents and accelerate drying. If the temperature is too high without good air flow, blocking may occur when the sheets are stacked warm.

**CLEARs/
 EXTENDERS/
 ADDITIVES**

RE180 Thinner or RE185 Fast Thinner may be added up to 20% by weight to reduce viscosity.

9731 Retarder may be added up to 10% by weight to slow the drying time.

9727 Mixing/Overprint clear may be used for overprinting, as a metallic mixing clear and to reduce the density or opacity of a color.

NB72 Catalyst may be added up to 10% by weight of for improved adhesion to certain surfaces, such as corrugated polypropylene and some coated metals. The addition of NB72 can cause yellowing of the ink film upon exposure to sunlight. Use NB80 for exterior exposure.

NB80 Adhesion Promoter may be used for exterior applications requiring enhanced adhesion on difficult substrates. Add up to 10% by weight.

**The addition of catalyst or adhesion promoter will limit the shelf life to 6 – 12 hours.*

Flattening Paste – 9748 Flattening Paste may be added to prevent blocking on highly plasticized substrates and coated card stocks and will also prevent the ink from penetrating into Tyvek®. Add 10% - 20% by weight.

**ADHESION
 TESTING**

Cross Hatch Tape Testing – use a cross hatch tool or a sharp knife to cut through the ink film only. Then apply 3M #600 clear tape on cut area; rub down and rip off. Ink should only come off from the actual cut areas.

Fingernail Scratch Test – thoroughly dried ink will resist scratching.

CLEAN UP

Use IMS 301 Premium Graphic Press Wash for cleaning ink off the screen and IMS 201 Premium Graphic Screen Wash prior to reclaiming.

GENERAL GUIDELINES
**INK
 HANDLING**

All personnel mixing and handling inks must wear gloves and eye protection. Clean up spills immediately. If ink does come in contact with skin, wipe off with a clean, dry, absorbent cloth (do not use solvent or thinner). Consult the 9700 Series Material Safety Data Sheet for further instructions and warnings.

**PANTONE
 MATCHING
 SYSTEM® BASE
 COLORS**

The Pantone Matching System® Base Colors are highly concentrated versions of the base colors used to simulate the Pantone® Color Specifier 1000. The higher pigment concentration of these base colors provides stronger colors for more opacity. This facilitates the matching of Pantone® colors on light colored, non-white substrates, as well as providing an adjustment range to change the color for varying levels of ink deposit.

**STANDARD
 PRINTING
 COLORS**

The Standard Printing Colors have excellent flow and opacity.

**HALFTONE
 COLORS**

9700 Series Halftone Colors are formulated with high densities in order to have the flexibility to satisfy most process color density requirements.

97HTEX Halftone Extender Base may be added to reduce densities of the halftone colors.

TONERS

The toners are concentrated, clean, transparent colors. These inks may be printed straight from the container and may also be used in color matches.

**METALLIC
 COLORS**

Metallic pigments may be added to the ink as a component of a color match or to 9727 Mixing/Overprint Clear. Due to possible limited shelf life, only mix quantities of metallic ink needed for immediate use. Excessive amounts of metallic powder will degrade adhesion and the overall performance of the printed ink.

When inks are to be printed over a metallic color, the overprinting ink(s) must be evaluated for intercoat adhesion over the metallic color before proceeding with the production run. To maximize intercoat adhesion over metallic colors, we recommend that the metallic be printed as late as possible in the print sequence.

STORAGE

Store tightly covered at temperatures between 60°-90°F (15°-32°C). Ink taken from the press should not be returned to the original container. Store separately to avoid contaminating unused ink.

COLOR AVAILABILITY

Stock Number	Standard Printing Colors		Stock Number	Pantone Matching System® Base Colors
9710	Primrose Yellow		+9758	Tinting White
+97LF10	Primrose Yellow		+9759	Tinting Black
9711	Lemon Yellow		+9760	Orange
+97LF11	Lemon Yellow		+9761	Yellow
9712	Medium Yellow		+9762	Warm Red
+97LF12	Medium Yellow		+9763	Rubine Red
9713	Emerald Green		+9764	Rhodamine Red
+97LF13	Emerald Green		+9765	Purple
9718	Scarlet Red		+9766	Violet
+97LF18	Scarlet Red		+9767	Reflex Blue
+9719	Fire Red		+9768	Process Blue
9720	Brilliant Orange		+9769	Green
+97LF20	Brilliant Orange			
+9721	Peacock Blue		Stock Number	Toners
+9722	Ultra Blue		+9780	Yellow Toner
+9724	Black		+9781	Orange Toner
+9727	Mixing/Overprint Clear		+9782	Carmine Toner
+9775	Super Opaque White		+9783	Magenta Toner
			+9784	Maroon Toner
			+9785	Green Toner
Stock Number	Transparents		+9786	Blue Toner (GS)
+97PB12	Trans Medium Yellow		+9787	Blue Toner (RS)
+97PB18	Trans Red		+9788	Violet Toner
+97PB60	Stop Sign Red		+9789	Red Toner

Stock Number	Halftone Colors	Stock Number	Additives/Reducers
+97HTEX	Halftone Extender Base	+9748	Flattening Paste
+97HTB	Halftone Blue	+NB72	Catalyst
+97HTR	Halftone Red	+NB80	Adhesion Promoter
+97HTY	Halftone Yellow	+RE180	Thinner
+97HTBK	Halftone Black	+RE185	Fast Thinner
		+9731	Retarder
		+IMS 201	Premium Graphic Screen Wash
		+IMS 301	Premium Graphic Press Wash

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.

+Based on information from our raw material suppliers, these products are formulated to contain less than 0.06% lead. If heavy metal content is required, independent lab analysis is recommended.

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