9600 SERIES POLYESTER SCREEN INK

TECHNICAL DATA SHEET

9600 Series Screen Ink is designed primarily for printing on untreated polyester films. The ink will dry to a film exhibiting good gloss and flexibility with the exception of 9652 Super Opaque Black, which exhibits a matte, but flexible ink film.

9600 Series may be catalyzed with NB72 Catalyst or NB80 Adhesion Promoter for adhesion to a diverse range of substrates including polyester, some rubber, polycarbonate, melamine plastics, leather and some coated and uncoated metals.

When printing 9600 Series on polycarbonate for insert-mold decorating applications, up to 5% by weight addition of NB72 will provide optimum performance.

SUBSTRATES	Untreated polyester, polyester coated surfaces, some treated or top coated polyester films and polycarbonate.

USER INFORMATION

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. See full disclaimer at the end of the document.

MESH	200-330 threads per inch (77 – 130 threads per cm) monofilament polyester mesh for most applications
STENCIL	Solvent resistant direct emulsions and capillary films
SQUEEGEE	70-80 durometer polyurethane squeegee
COVERAGE	1200-1800 square feet (112 – 167 square meters) per gallon depending upon ink deposit
PRINTING	The 9600 Series ink is formulated for the 9630 Thinner to be added up to 15% by weight to improve flow. Thoroughly mix the inks prior to printing. To maintain on screen stability, add additional ink in small increments throughout the print run. Maintain ink temperature at 65°-90°F (18°-32°C) for optimum print drying performance. Lower temperatures increase the ink viscosity, impairing both flow and drying. Elevated temperatures lower the ink viscosity, reducing print definition, film thickness and opacity. Pretest to determine optimum printing performance for a particular set of ink, substrate, screen, press, and drying variables/conditions.
DRYING/ CURING	9600 Series ink dries by solvent evaporation and dries at temperatures of 90º-150ºF (32º-66ºC) in seconds. Due to the softer ink film which 9600 forms, block resistance testing should be carefully performed prior to production. Good air circulation is necessary to remove the vaporized solvents. Multiple layers of ink may require longer drying times than a single layer. If catalyst has been added to the ink, the catalyzed ink film will continue to cure after the initial drying. For complete curing, bake at 140ºF (60ºC) for 4 hours or allow at least 3 days at room temperature before further processing.
CLEARS / VARNISHES	*Mixing Clear / Metallic Mixing Clear:* Use 9627 Mixing/Overprint Clear to reduce the density of colors or as a clear base for specialty additives such as Metallics.

© 1996, 2006, 2007, 2010 Nazdar Company

ADDITIVES	All additives should be thoroughly mixed into the ink before each use. Prior to production, test any additive adjustment to the ink. *Reducer:* Use 9630 Thinner to reduce the viscosity of these inks and to improve flow. Add up to 15% by weight. *Retarder:* Use 9631 Retarder to improve screen stability during hot climate conditions to reduce the ink. Add up to 10% by weight. Do not exceed recommended levels for reduction. Over reduction with retarder may result in blocking. *Catalyst/Adhesion Promoter:* Use NB72 Catalyst or NB80 Adhesion Promoter to further enhance adhesion on certain materials. If catalyzing with NB72, add 1 part NB72 to 9 parts 9600 Series by weight. The addition of NB72 may cause yellowing of the ink film on exposure to sunlight. For applications requiring some outdoor exposure, use NB80 up to 10% by weight. Shelf life of catalyzed ink is approximately 6 to 8 hours. Improved adhesion will not be demonstrated for 24 hours, with full cross linking in 3-7 days. *Flattening Powders:* Use 9648 Flatting Paste to reduce gloss. Add up to 20% by weight.
CLEAN UP	*Screen Wash (Prior to Reclaim):* Use 9637 Screen Wash or IMS201 Premium Graphic Screen Wash. *Press Wash (On Press):* Use IMS301 Premium Graphic Press Wash.
STORAGE	Store tightly covered at temperatures between 65°-90°F (18°-32°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 9600 Series Material Safety Data Sheet for further instructions and warnings.
ADHESION TESTING	1. Touch of ink surface – the ink will be smooth and slick. 2. Thumb twist – the ink surface will not mar or smudge. 3. Scratch surface – the ink will resist scratching. 4. Cross hatch tape test – 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, wait for 1 minute and rip off at a 180 degree angle. Ink should only come off in actual cut areas.

© 1996, 2006, 2007, 2010 Nazdar Company

PRODUCT OFFERING

STANDARD PRINTING COLORS	The Standard Printing Colors have excellent opacity.
HALFTONE COLORS	*Halftone Extender Base* is used to reduce the density of any of the halftone colors. *Halftone Colors* are formulated with increased densities in order to have the flexibility to satisfy most process color density requirements.
TRANSPARENT COLORS	The Transparent Colors exhibit very good transparency and depth of color.
SPECIAL ADDITIVES	When inks are to be printed over a special effect color, the overprinting ink(s) 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. The following special effect pigments may be added to the 9600 inks. These pigments are available in 1-pound containers. Contact Nazdar for the item number(s) and availability of each special effect product. Pigments may settle in the container; prior to printing, thoroughly mix the ink. *Silver (aluminum) Metallic:* add up to 8% by weight. *Gold (bronze) Metallic:* add up to 15% by weight. Mix only enough metallic ink to be used the same day. Chemical reactions in metallic inks may result in viscosity, color and printability changes over time. *Pearlescents/Interference Pigments:* add up to 20% by weight. *Multi-ChromaticPigments:* add up to 10% by weight. See the Pearlescent, Interference, and Multi-Chromatic Technical Data Sheets for more information. *Phosphorescents:* 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 screen printed samples available. *Conventional Color Card:* shows the Standard Printing Colors, Halftone Colors and Single Pigment Toners. *Special Effects Color Card:* shows Metallic, Pearlescent, Interference, and Multi-Chromatic effects mixed with clear.

© 1996, 2006, 2007, 2010 Nazdar Company

PACKAGING	All items listed below are available in kilogram and/or gallon containers.
'LF' ITEM NUMBERS	Colors with an item number containing 'LF' indicate a lead-free alternative that replaced a lead containing color. All colors listed in this document are lead-free.

Stock Number	Standard Printing Colors	Stock Number	Standard Printing Colors
96LF10	Primrose Yellow	9621	Peacock Blue
96LF11	Lemon Yellow	9622	Ultra Blue
96LF12	Medium Yellow	9624	Black
96LF13	Emerald Green	9625	White
9619	Fire Red	9627	Mixing/Overprint Clear
96LF20	Brilliant Orange	9650	Barrier White
		9652	Flat Super Opaque Black
Stock Number	**Transparent Colors**	**Stock Numbers**	**Halftone Colors**
96PB10	Trans Primrose Yellow	96HTEX	Halftone Extender Base
96PB12	Trans Medium Yellow	96HTB	Halftone Blue
96PB13	Trans Green	96HTR	Halftone Red
96PB18	Trans Red	96HTY	Halftone Yellow
96PB20	Trans Orange	96HTBK	Halftone Black
96PB22	Trans Blue		
96PB33	Trans Purple		
96PB60	Stop Sign Red		

PACKAGING	Additives/Reducers are available in kilogram, liters and/or gallon containers. Cleaners are available in 1-gallon, 5-gallon and 55-gallon containers.

Stock Number	Additives/Reducers	Stock Number	Clean Up
9630	Thinner (gallons only)	9637	Screen Wash
9631	Retarder (gallons only)	IMS201	Premium Graphic Screen Wash
9648	Flatting Paste	IMS301	Premium Graphic Press Wash
NB72	Catalyst (liters only)		
NB80	Adhesion Promoter (liters only)		

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 exact heavy metal content is required, independent lab analysis is recommended.

Nazdar Worldwide Headquarters
8501 Hedge Lane Terrace, Shawnee, KS 66227-3290 USA
Toll Free: 866.340.3579 or Tel: 913.422.1888 Fax: 913.422.2296
e-mail: custserv@nazdar.com

Nazdar Limited
Barton Road, Heaton Mersey, Stockport, England SK4 3EG
Tel: + (44) 0.161.442.2111 Fax: + (44) 0.161.442.2001
e-mail: technicalservicesuk@nazdar.com

http://www.nazdar.com

© 1996, 2006, 2007, 2010 Nazdar Company