

## 9600 Series Polyester Screen Ink

Code Ref: D436

technical information and application instructions

**Substrates** Untreated polyester, polyester coated surfaces, some treated or top coated polyester films, polycarbonate, and nylon polyweave with polyester waterproofing.

**End Uses** Decals, bottles, and nameplates.

### Product Information

9600 Series is designed primarily for the printing on untreated polyester films. The inks will dry to a film exhibiting good gloss and flexibility.

9600 Series may be catalysed with N690-S515 - NB70 Catalyst, for adhesion to a diverse range of substrates including polyesters, some rubber, polycarbonate, melamine plastics, leather, and some coated and uncoated metals.

When printing 9600 Series on polycarbonate for insert-mould decorating applications, 3% to 5% by weight additions of N690-S515 - NB70 Catalyst will provide optimum performance.

On request, colours can be formulated for extended outdoor use, however, this ink is not recommended for extended outdoor exposure, as in the medium term "chalking" is possible. It is possible that the use of an over-varnish such as Nazdar 2-Pak Urethane Clear will minimise this.

### Application 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 end of document.*

**Mesh** 43-120T monofilament polyester meshes are recommended.

**Stencil** All direct photo emulsions, photo stencil films and hand cut stencil films that are solvent resistant.

**Squeegee** 70 to 80 durometer polyurethane blades as well as triple durometer blades that produce an even ink deposit.

**Coverage** 25-50 sqm/kilo depending on mesh used.

**Clean Up** N660-S344 Economy Screen Wash

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manufacturing under licence to NAZDAR

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- Printing** The 9600 Series must be thinned with approximately 10% N665-S377 Thinner or N660-S339 Retarder. The use of a mixer is recommended to thoroughly mix inks prior to printing.
- Inks will maintain optimum print performance when the ink temperature is 18°C – 32°C. Shop conditions vary; it is recommended to pre-test the ink and additive combination to determine optimum printing performance for a particular set of substrates, screen, press and drying oven.
- Drying** 9600 Series dries by solvent evaporation. 9600 will air dry in 20 – 40 minutes or may be force-dried at temperatures 32°C - 66°C 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 vaporized solvents.
- Overprints may require longer drying times than a single layer.
- Curing** If catalyst has been added to the ink, the catalysed ink film will continue to cure after initial drying. For complete curing, bake at 60°C for 24 hours or allow at least 3 days in room temperature before further processing.

## Clears / Extenders / Additives

- Thinner** To improve flow or accelerate drying, reduce the ink with 5% - 15% by weight of N660-S377 Thinner.
- Retarder** To improve screen stability during hot climate conditions or for slower drying, reduce the ink with 5% - 10% by weight N660-S339 Retarder. Do not exceed recommended levels of reduction. Over reduction with retarders can result in blocking.
- Catalyst** N690-S515 - NB70 Catalyst is available in 200g and 1kg containers. When catalysing 9600 Series, add 1 part of NB70 Catalyst to 9 parts by weight of 9600 Series colour or clear. Shelf life of catalysed 9600 Series is approximately 6 to 8 hours. Only mix quantities for immediate use.
- Catalysing 9600 Series with NB70 will also reduce its normal tendency to block when stacking ink to ink, or ink to substrate as well as improve its resistance to solvents and chemicals.
- In addition of NB70 can cause yellowing of the ink on exposure to sunlight. For applications requiring some outdoor exposure, use 6% - 10% by weight N690-S463 - NB80 Adhesion Promoter.

## **Mixing / Overprint Clear**

D436-A005 Mixing/Overprint Clear may be used to reduce colour strength or as a metallic Mixing varnish. (See metallic colours).

- Metallic Colours** Metallic pigments may be added to the inks as a component of a colour match or to D436- A005 Mixing/Overprint Clear. Due to possible limited shelf life, only mix quantities of metallic ink needed for immediate use. Leafing pigments may show incompatibility to the ink. Excessive amounts of metallic powder will degrade adhesion and the overall performance of the printed ink.

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## 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). Wash and rinse affected area with soap and water. Consult the 9600 Series SDS for further instructions and warnings.

### **Storage**

Store tightly covered at temperatures between 15°C - 32°C. Ink taken from the press should not be returned to the original container. Store separately to avoid contaminating unused ink. Never return Catalysed ink to the original can – all the ink will gel.

Shelf life of unopened cans is 5 years from date of manufacture. Stir well before use.

## **caution**

Please proof this ink, reduced to the consistency you wish to adopt, on a sample of the ACTUAL SUBSTRATE you will be printing BEFORE starting a production run.

Give the proof 24 hours to post cure then check for: Abrasion resistance, adhesion, print appearance and correctness of colour. The adequacy of this ink in these properties cannot be fully established on laboratory equipment on a small scale.

**Keep away from heat and open flame. Use with adequate ventilation. Avoid prolonged or repeated contact with skin. Avoid prolonged breathing of vapour or spray mist. Keep container closed when not in use.**

*GL stands behind the quality of this product. GL cannot, however, guarantee the finished results because GL 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 GL.*

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Last date amended: 7 February 2023