

TOUPAK Glass Ink

Code Ref: 438

technical information and application instructions

Substrates	Glass, metal, and Polyethylene.
End Uses	Glass containers, Cosmetic, hair products, chemical, and specialty product container packaging.

Product Information

The Toupak Glass Ink Series is suitable for printing onto glass, metal, and polyethylene. This is a slow drying ink system. The curing time required is ca. 72 hours. The amount of catalyst added, determine the hardness of print, ie. More catalyst added will result in greater flexibility and less product resistance whereas lower concentration of catalyst will result in better adhesion and product resistance. that have both good lightfastness and resistance to hot caustic soda solutions (as used in a bottle washer). The use of an overvarnish is required to maximize the number of "trips" the bottle can be used for.

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 mesh is recommended for most applications.
Stencil	Direct emulsions and thin capillary films that are solvent resistant, UV ink compatible, and yield a thin ink deposit will work best.
Squeegee	Sharp 70-90 single durometer polyurethane blades as well as multi-durometer blades that produce an even, thin ink deposit will work best.
Coverage	20-40 Square metres/kilo depending upon ink deposit.
Printing	N665-S280 Epoxy Thinners and Wash is to be used to reduce the viscosity of these inks. To retard drying of ink use N665-S282 Epoxy Retarder.
Mixing Ratio	First thoroughly stir colour in its container. The catalyst percentage varies from 5 – 25 % of final mixed ink. For example, weigh a small quantity of ink – 100 grams, add one quarter the quantity of the catalyst – 25 grams to provide a 20% catalyst, which should provide a flexible dried print. The lower percentage of catalyst will result in a less flexible, more product resistance and better adhesion.

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Only mix quantities of ink that will be used in a 4 – 5-hour period as the ink will start to gel and become unusable after this time.

It is essential that the end user performs adequate testing on fully cured prints to confirm the suitability for the intended application.

Catalyst

Use D438-A024 TOUPAK Catalyst and D438-A178 XTRA HARD TOUPAK catalyst where water resistance is required. (Mixing ratio of XTRA HARD TOUPAK catalyst is 20 parts inks to 1-part XTRA HARD catalyst. Mixing ratio of normal catalyst D438-A024 can vary from 10 – 20 percent of final ink mixture with the lower percentage resulting in a harder but less flexible film of ink.

Drying / Curing

Drying / Curing 90 seconds at 80°C. Air dry 1 – 3 hours. This is for physical drying not full curing.

For full cure – depending upon substrate the following temperatures/time is a guide:

80°C	30-40 minutes
120°C	10-15 minutes

Or 72 hours air drying.

Opacity

Colours are generally opaque, Transparent colours available.

Mixing

D438-A170 Mixing/Overprint Clear may be used to reduce colour strength or as a metallic Overprint Clear mixing varnish. (See metallic colours).

Metallic Colours

Metallic pigments may be added to the inks as a component of a colour match or to D438- A170 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.

Recommended Ratios:

Silver (Aluminium)	8% by weight	80gms powder to 1kg clear
Gold (Bronze)	15-25% by weight	150-250gms powder to 1kg clear

NOTE: Normal Screenwash does not work well due to the nature of the resins used and screens may remain stained or even blocked.

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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 Toupak SDS for further instructions and warnings.

Storage

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