

## MK Series Mirakal Lacquer Screen Ink

Code Ref: D480 | D483 | D485 | D486

technical information and application instructions

### Product Information

A universal hard finish gloss lacquer. Can be printed on lacquer coated surfaces, wood, metal, paper, cardboard displays, foil, and many types of rigid plastics. Very good results are obtained as a single pot ink for polyethylene bottle printing. This system has good product resistance for soaps and bleaches but is not suitable for alcohol/glycol-based products, such as brake fluid.

### 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.*

<b>Mesh</b>	90T or finer mesh is recommended.
<b>Stencil</b>	All direct photo emulsions, photo stencil films and hand cut stencil films that are solvent resistant.
<b>Squeegee</b>	Sharp edge 70-80 durometer polyurethane blades as well as triple durometer blades that produce an even ink deposit.
<b>Coverage</b>	25 – 40 sqm per kilo (90T-120T mesh)
<b>Printing</b>	To improve flow, reduce the ink with 15-20% by weight of N565-S350 IL & MK Thinner. To improve on-screen stability during hot climatic conditions or for slower drying replace part of the thinner with 5-10% N565-S352 IL & MK Retarder. Do not exceed recommended levels of reduction, over reduction with Retarders can lead to blocking. Always mix well prior to each use.
<b>Drying</b>	MIRAKAL inks will air-dry in 20-40 minutes or can be heat dried requiring 1-3 minutes @ 80°C. When printing polyethylene bottles do not exceed 50-60°C to prevent distortion of the plastic.

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## Treatment of Polyethylene Bottles

It is essential that when printing on polyethylene bottles that these are treated immediately before printing, either by a corona discharge treater or a flame treater to give a treatment level of 42-46 dynes. If printing a multicolour image that requires more than one pass through the press, it is important that the time between printing is minimized as the treatment level can deteriorate very quickly leading to poor adhesion on subsequent colours.

## Clears / Extenders / Additives

**Thinner** – N565-S350 – IL & MK thinner may be added to reduce the viscosity of these inks. Add approximately 15-20% by weight.

**Retarder** – N565-S352 – IL & MK Retarder may be added at 5% to an already reduced ink to improve on-screen stability during hot climatic conditions or for slower drying.

MIRAKAL Clear may be used to reduce colour strength or as a metallic mixing varnish for silver powder only.

## Adhesion

Allow the substrate to fully cool before testing.

**Cross hatch tape test** – use a cross hatch tool or sharp knife to cut through the ink film only. Apply 3M#600 clear tape on cut area, rub down and rip off. Ink should only come off from actual cut areas.

**Fingernail scratch test** – thoroughly dried ink will resist scratching.

## Clean Up

Use N660-S344 Screen Wash for cleaning ink from the screen.

## 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 MK Mirakal Lacquer 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.

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

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## 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.*

[end]

Last date amended: 7 February 2023