



# TECHNICAL DATA SHEET

NAZDAR®

TECHNICAL INFORMATION AND APPLICATION INSTRUCTIONS

**MK SERIES MIRAKAL LACQUER SCREEN INKS**

**CODE REF: 480/483/  
485/486**

## 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

**MESH** 90T or finer mesh is recommended.

**STENCIL** All direct photoemulsions, photostencils and hand cut stencil films that are solvent resistant.

**SQUEEGEE** Sharp edge 70-80 durometer polyurethane blades as well as triple durometer blades that produce an even ink deposit.

**COVERAGE** 25-40 sq m / kilo

**PRINTING** 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.

**DRYING** 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.

**METALLIC**

Only metallic silvers are possible, as gold powders are not stable in this system. Imitation golds are possible, consult your local branch with regard to shades.

**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 or N615 IMS 201 Premium Graphic 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 Mirakal Material Safety Data Sheet 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.

**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 dry out 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.

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.

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.