

Product Data Sheet

Screen Printing Ink

SunChemical®
Coates Screen Inks

MI

Solvent Based Screen Ink Range, 1-Component

APPLICATION

Special screen ink for reflective prints (mirror effect) on reverse side of clear foils or panels made of acrylic glass (PMMA), polycarbonate or coated polyester.

PROPERTIES

- Screen inks MI are solvent based 1-component screen printing inks. They dry by evaporation of solvents.
- **Mirror effect will only be achieved when printing onto the reverse side of glass-clear substrate and viewed from the front side.**
- Due to their formulation MI inks only have a limited adhesion and scratch resistance. Therefore, overprinting with our ink range XL (varnish XL 70, black XL 65/NT-NEU, or white 60/NT-NEU) is recommended.
- MI inks show good light fastness.
- Note: The resulting mirror effect mainly depends on the quality of the substrate, especially on transparency and on processing conditions. It is strongly recommended to process MI inks with new screen fabrics and well-cleaned tools (squeegee, spatulas, mixers).

COLOUR SHADES - OVERVIEW

- Mirror ink: 1 silver shade, 2 gold shade, 1 copper shade

CHOICE OF PIGMENTS AND LIGHT FASTNESS

Colour shades of MI ink range contain pigments with a high light fastness. Light fastness and weather resistance will reduce if thinner layers are applied.

Applied on suitable substrates screen printing inks MI are suitable for medium-term outdoor applications.

ADJUSTMENT FOR SCREEN PRINTING

- Screen printing inks MI are not supplied in a ready-to-print adjustment.
- Depending on local conditions the ink is adjusted for printing by addition of 10 to 15 % by weight thinner or retarder (stir with mixer, agitator).
- Prior to printing, the inks should be stirred well to obtain a homogeneous dispersion of all ingredients.

THINNERS / RETARDERS

For adjustment of screen inks MI, the following products are available:

Thinner:	■ XVH	Standard thinner, very mild
Retarder:	■ TPV	Standard retarder, very slow

■ = Preferred ○ = Suitable

Depending on printing conditions, the products listed above can be mixed into the inks individually or as mixtures. Please note that depending on evaporation rate of the thinner/retarder used drying times may be longer.

Thinner/retarder should be mixed into the ink thoroughly using a mixer or agitator. In addition, inks should be stirred well prior to each processing to obtain a homogeneous dispersion of all ingredients.

ADDITIONAL AUXILIARY AGENTS

Not necessary.

OVERPRINTING

Protective overprinting of MI prints is recommended.

- Varnish: XL 70
- Black: XL 65/NT-NEU
- White: XL 60/NT-NEU

DRYING

MI screen printing inks dry physically, i.e., by evaporation of solvents.

Drying times below are only approximate as drying properties depend on various factors:

- Type and amount of thinners/retarders used.
- Thickness of printed ink layer; number of overprinted ink layers.
- Rack drying or tunnel dryer.
- Temperature, air supply, speed of air stream.
- Type of substrate/material printed.

Depending on local conditions, drying time in a drying frame (rack) is approx. 10-15 minutes at room temperature (20°C). Drying time using an efficient tunnel dryer (e.g., 2 hot air and 1 cold air section) is about 120 seconds at a temperature of 50°C. **Please note that blocking resistance of MI prints must be tested under local conditions!**

SCREEN FABRIC / STENCILS

MI inks have been formulated for printing with fabrics of 120 threads/cm. Suitability for printing with coarser or finer fabrics should be determined by corresponding pre-trials.

All copy emulsions and capillary films suitable for solvent based screen inks can be used, such as our program of SunCoat or Murakami products.

CLEANING

Stencils and tools can be cleaned with our universal cleaning agents URS or URS 3.

PACK SIZE

Screen printing inks MI are delivered in 1 litre containers. Other pack sizes are available upon request.

SHELF LIFE

In closed original containers, MI inks generally have a shelf life of 3 years from date of production.

For exact date of expiry, please refer to the label.

SAFETY DATA SHEETS

Read safety data sheet prior to processing.

Safety data sheets comply with Regulation (EC) No. 1907/2006 (REACH), Appendix II.

CLASSIFICATION AND LABELLING

Hazard classification and labelling comply with Regulation (EC) No. 1272/2008 (CLP/GHS).

CONFORMITY

Coates Screen Inks GmbH does not use any of the substances or mixtures for the production of printing inks, which are banned according to the EUPIA (European Association of the Printing Inks Industry) exclusion policy.

Further compliance confirmations are available upon request.

ADDITIONAL INFORMATION ABOUT OUR PRODUCTS

Product data sheets: Auxiliary Agents for Screen Printing HM

Brochures: Solvent Based Screen Printing Inks

Internet: www.coates.de, Service & Support, Technical Articles

FOR COLOUR RANGES, PLEASE REFER TO NEXT PAGE.

COLOUR SHADES

MI Mirror Gloss Inks			
White Gold	MI 75	Copper	MI 78
Red Gold	MI 76	Silver	MI 79

In some individual cases the product characteristics of special colour shades and modifications of this ink type manufactured upon customer request may differ from the above properties.

The statements in our product and safety data sheets are based on our present experiences, however they are no assurance of product properties and do not justify a contractual legal relationship. We provide these details to inform customers about our products and their possible applications. However, on account of various factors influencing processing of our products it is essential to carry out printing trials under local production conditions. Choice of individual ink types and their suitability for the intended application is the sole and entire responsibility of the user. We do not assume any liability for any problems of technical or process-related nature. Any liability shall be limited to the value of the goods delivered by us and processed by the user.

All former product data sheets are no longer valid.

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Coates Screen Inks GmbH
Wiederholdplatz 1 90451 Nürnberg
Tel.: 0911 6422 0 Fax: 0911 6422 200
<http://www.coates.de>