

Solvent-based InkJet Printing Ink for PVC self-adhesive foils and PVC tarpaulin materials

Good adhesion, fast drying and high resistance against UV light, suitable for long-term outdoor applications

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Field of Application

Substrates

The Mara® Jet DI-MS substrate range includes

- different qualities of PVC self-adhesive foils (monomeric, polymeric, and cast PVC films)
- coated tarpaulins
- (un)coated fabrics
- suitable papers

The silver is suited for non-absorbing, smooth substrates like:

- Monomer PVC self-adhesive foils
- Polyester films
- Coated banner and tarpaulin materials
- Papers and fabrics

Particularly good results have been achieved with the silver on substrates like

- Melinex 505 (Pütz Folien)
- Excell XG532 (Pütz Folien)
- Hostaphan GN4600 (Pütz Folien)
- Pearl (Decoprint)
- LinoPlex GC2 (MM Karton)
- TerraPress Silk (Stora Enso)

Absorbent or uneven substrates often cause a bad pigment orientation (silver) resulting in inferior brilliance.

Since all the print substrates mentioned may be different in printability even within an individual type, preliminary trials are essential to determine the suitability for the intended use.

Field of use

Mara® Jet DI-MS is suitable for the below mentioned wide format printers:

- Mimaki JV33/34
- Mimaki CJV-30

The closed systems (bags and cartridges) are also suited for

- Mimaki JV 5/150/300
- Mimaki CJV 150/300

Other printers employing EPSON® DX5 print heads can be tested by a Marabu technician upon request.

Characteristics

Drying

The drying parameters of the machine during the use of Mara® Jet DI-MS can be set as recommended below. Depending on media quality and type it could be required to adjust these parameters.

Good printing results have been achieved with preheating the media to approx. 40°C and print heating of approx. 38°C. Drying temperature of approx. 50°C ensures that the print is fully dry before winding it back up. These temperatures may be adjusted individually according to printing speed, substrate and printer configuration, especially when using silver inks.

Fade resistance

Pigments of high fade resistance have been used for Mara® Jet DI-MS standard shades in order to ensure long-term outdoor suitability. On films of appropriate quality, a light fastness of 3 years is achieved with reference to the central-European climate. Mara® Jet DI-MS Silver is suited for short term outdoor applications only.

For fleet marking applications with standard shades, like advertisements on vehicles, an additional lamination or varnishing is to be carried out for increased mechanical protection and light fastness. For the silver we only recommend lamination because liquid varnishes will destroy the silver effect.

Range

Basic Shades

428	Yellow
434	Light Magenta
438	Magenta
455	Light Cyan
459	Cyan
489	Black

Further Products

191	Silver
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Auxiliaries

DI-UR 2	Cleaner
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For cleaning print heads and printer parts DI-UR 2 can be used for all components of the ink system (after longer machine stops). This cleaner has been chemically adjusted to the ink.

We recommend carrying out cleaning cycles at the beginning and the end of production, and cleaning the nozzle plate once a week.

Printing Parameters

In order to use the silver on a Mimaki JV33, JV 34, or CJV-30, the cartridge must be placed in the white channel after setting the printer to 6 colour print mode plus white. Printer and RIP software must be set to spot colours. To avoid density shifts due to the settling of the pigment, take the ink cartridges out of the printer every 3rd day and shake them gently. To make sure there is no settled material in the ink system, print a square of 100 x 30 cm at 100% density. Please carry out a cleaning cycle after long print interruptions (> 1 week). Medium ink deposit gives the best metallic effect. Depending on the media type and quality, the two Silver Spot Colour Channels are typically used with 50-80% ink reduction.

Shelf Life

The shelf life for an unopened ink container if stored in a dark room at a temperature of 15 - 25 °C is:

- 1.5 years for standard shades
- 1 year for 191 Silver

The ambient temperature may fall below this value only once for max. 2-3 days. Under different conditions, particularly other storage temperatures, the shelf life is reduced. In such cases, the warranty given by Marabu expires.

Change-over

Changing over a Mimaki printer from Mimaki SS21 to Mara® Jet DI-MS does not require preliminary cleaning of parts of the printer. Simply replace the cartridges and run some extra cleaning cycles. In case of changing from a third-party supplier to DI-MS, it is our advice to run an additional cleaning cycle with the third-party cleaner before repeating this procedure with the cleaner DI-UR 2. It is highly recommended to exchange the dampers, and any other parts if necessary.

Note

Our technical advice whether spoken, written, or through test trials corresponds to our current knowledge to inform about our products and their use. This is not meant as an assurance for certain properties of the products nor their suitability for each application.

You are, therefore, obliged to conduct your own tests with our supplied products to confirm their suitability for the desired process or purpose. The selection and testing of the ink for specific applications is exclusively your responsibility. Should, however, any liability claims arise, they shall be limited to the value of the goods delivered by us and utilised by you with respect to any and all damages not caused intentionally or by gross negligence.

Mara® Jet DI-MS



Recommendation

In order to ensure a smooth production workflow, please follow the guidelines issued by the manufacturer and Marabu. We recommend to replace the dampers and cappings once a year. Compliant with the printer's manual, a "Fill-up" should be carried out after longer print breaks.

Labelling

For Mara® Jet DI-MS and its auxiliaries, there are current Material Safety Data Sheets available according to EC regulation 1907/2006, informing in detail about all relevant safety data including labelling according to the present EEC regulations as to health and safety labelling requirements. Such health and safety data may also be derived from the respective label.

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