

Pad Printing Ink

Type UVM

Ink Data Sheet

NOTE: Read Material Safety Data Sheet (MSDS) Prior To Use

BASE: Produced based on UV- curing epoxy resin.

APPLICATION

UV-curing pad printing ink range UVM is a system for universal applications. Due to the high quality resins contained it meets highest demands. A variety of substrates can be printed with these pad printing inks. In addition to rigid and plasticized PVC, pre-treated polyolefin, polycarbonate and various polystyrene modifications UVM inks are also suitable for glass, paper, duro-plastics and metal surfaces. Due to the different properties of printing materials, even within the same material range, printing tests are absolutely necessary.

PROPERTIES

UV- curing pad printing inks UVM show the following properties:

- good opacity
- low tendency to yellowing
- good adhesion on different substrates
- high gloss
- adjustable flexibility
- very good transfer properties from pad to substrate (16 - 19 µm plate)
- additional post-curing by heat application is possible after UV-curing
- shadow free print with good contour sharpness

ADDITIVES

Adhesion promoter "Additive VH" (addition up to 10%). Printing consistency is adjusted with 10-20% thinner.

Thinner: Thinner C

For retardation use TPD. If retarder TPD is too slow, also thinner VD 60 can be used as retarder.

PROCESSING

The following processing parameter have to be followed:

Plate:

All kinds of clichés can be used, however due to their better resistance steel plates are preferred. Criteria for choice of plates are comparable to those of conventionally drying pad printing inks.

Plate depths:

Plate with an etching depth of approx. 16 - 19 µm.

Type and quality of pad:

Processing of UVM should be carried out with pads with an unworn surface (hardness 6 - 16 Shore)

UV-CURING

Pad printing inks UVM only cure under UV-radiation (approx. 1600mJ—2500mJ) within a wavelength of 250- 410 nm (measured with Kühnast UV-integrator).

Then curing can be accelerated by heat application. The chain-polymerization caused by the UV-light will continue at room temperature. A forced drying accelerates post-curing and is especially recommended for difficult substrates.

Uncured ink can be cleaned using synthetic cleaner, ink remover, alcohol, and Thinner C.

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CLEANING

Pad printing inks TP/UV-K can be removed from clichés and tools using thinner VD 40.

Warranty Period:

Ink UVM: 1 year from ship date (in original sealed container)

Thinner C: 2 years from ship date (in original sealed container)

PROCESS COLORS ACCORDING TO EUROPE SCALE

yellow UVM-180

magenta UVM-181

cyan UVM-182

C-MIX 2000

BASE COLORS

primrose UVM-Y30

violet UVM-V50

golden yellow UVM-Y50

blue UVM-B50

orange UVM-O50

green UVM-G50

scarlet UVM-R20

black UVM-N50

red UVM-R50

white UVM-W50

magenta UVM-M50

clear UVM-E50

BRONZE INKS

Bronze pastes and powders B 75 to B 79 are available for printing of silver and gold color shades.

The bronze pastes are mixed with the corresponding clear UVM-E50 prior to processing.

Gold and silver bronzes are metal pigments which may react with the pH-acidic UV components.

Therefore mixed bronze inks should be processed quickly (pot life of approx. 24 hours).

Mixing ratios (parts by weight) are as follows:

Gold bronze paste : UVM-E50 1:3

Silver bronze paste : UVM-E50 1:4

****Since operating conditions and applications are beyond our control, Trans Tech can not guarantee results, nor assume liability for any problem that may arise.**

The user should test the suitability of the product for its intended application. No warranty for results obtained, expressed or implied, can be assumed by Trans Tech.



Trusted Partner for Your Product Decorating Needs

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