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NoriCure[®] MPF

UV Curing Screen Printing Ink - for deep-drawing applications

Area of Application	<p>NoriCure[®] MPF is a deep-drawable UV curing screen printing ink for printing on PVC self-adhesive films, rigid PVC, polystyrene (PS), polycarbonate (PC) and pre-treated polyester (PET) substrates.</p> <p>The suitability for other materials such as polymethylmethacrylate (PMMA) and polypropylene (PP) must be tested.</p>
Characteristics	<p>NoriCure[®] MPF</p> <ul style="list-style-type: none">- excellent flexibility and formability, e.g. by thermo forming or high pressure forming- outstanding adhesion to various plastic substrates- easy processability (press-ready formulation)- unlimited screen open time- high gloss- good adhesion to UV and solvent-based screen printing inks- NVP free
Mesh	<p>Polyester fabrics of 150 to 180 threads/cm (380 to 460 threads/inch) are suitable.</p>
Stencil	<p>UV ink and solvent resistant emulsions must be used. Excellent results during long production runs are achieved by using Pröll emulsion Norikop 8HR.</p>

Squeegee Squeegees with an average hardness of 75° up to 80° Shore A. Duplex and Triplex squeegees or RKS-squeegees are recommended.

Color Shades **Basic Colors for the Pröll Matching System**

092	Blending Lacquer Colorless	467	Pink Transparent
109	Citron	472	Violet
112	Yellow	570	Deep Blue
171	Yellow Transparent*	669	Green Transparent
213	Orange*	945	White
312	Red	948	Black
318	Red Transparent		

*(not available in the U.S.A.)

With help of these brilliantly pigmented colors, any desired color shade can be matched.

All color shades of NoriCure® MPF do not contain any pigments based on toxic heavy metals (DIN EN 71, part 3).

Light Fastness High quality pigments are used for NoriCure® MPF. The light fastness is 8 (blue wool scale) with exception of 109 (blue wool scale 6), 312 and 368 (blue wool scale 7).

Weather Resistance NoriCure® MPF is not recommended for long-term outdoor use. The weather resistance of UV screen printing inks is influenced by the substrate and especially by the degree of cure of the ink film.

Auxiliaries NoriCure® MPF is press-ready.

For special processing or application conditions, the following auxiliaries are available:

Thinner NoriCure® MPF 090:

Addition up to 5 % to reduce viscosity

Blending Lacquer NoriCure® MPF 092 (not suitable as overprinting lacquer):

For lightening the Basic Colors as well as for increasing their transparency. Miscible with NoriCure® MPF Basic Colors (in any ratio).

UV Curing Guideline: For the curing of NoriCure® MPF ink films which were printed with a mesh 150-31 Y (380 threads/inch), an UV dose (Kühnast UV-Integrator, UV 250 – 410 nm) of approx. 200 mJ/cm² is necessary. The UV dose for sufficient curing depends on color shade, ink film thickness (printing mesh) as well as the type and color of the substrate. Depending on such parameters the dose must be adjusted.

Post Curing/ Overprinting	NoriCure® MPF is post cure even without UV-light. Post curing will be completed after 24 hours.
Processing	Direct sun light shining on open ink cans or on the ink in the stencil must be avoided!
Cleaning	Screens and utensils can be cleaned with UNI-REIN A III or UNI-CLEANER FP61.
Shelf Life	<p>Allow the ink as well as all the auxiliaries to be added to adjust to room temperature in the closed container before use.</p> <p>The shelf life stated on the label assures the ink's quality and refers to unopened original cans stored in a dry place at temperatures between 5 °C (40 °F) and 25 °C (75 °F).</p>
Safety Precautions	<p>UV inks which have not been cured may have an irritating and sensitizing effect to the skin and may cause allergic, hypersensitive reactions. Please use an accurate and clean working method when processing UV inks. You should wear suitable personal protection equipment (gloves, safety goggles, working clothes)!</p> <p>Uncured sheets are considered special waste and should therefore be cured under UV-light before disposal. Please pay attention to the safety data sheets for the ink system NoriCure® MPF.</p> <p>Supplementary information regarding the safe use of UV inks can be found in the brochure "UV-Drying" (Reference no. 205), of the Berufsgenossenschaft Druck und Papierverarbeitung, Rheinstr. 6 – 8, D-65185 Wiesbaden can be downloaded from http://www.bgdp.de/pages/service/download/medien/205.pdf</p>
Important	<p>Printing results, to a large extent, depend on the substrate as well as the printing and application conditions. We recommend checking your printing materials under your conditions of use prior to any production runs. Materials that are supposed to be identical may vary from manufacturer to manufacturer and even from batch to batch. Some substrates may have been treated with or can contain sliding agents, antistatics or other additives which will impair the adhesion of the inks.</p> <p>Ink adhesion and scratch resistance on the printed substrates have to be tested. Also the formability of the printed substrate has to be checked.</p> <p>The curing of UV systems is influenced by the output and the emission spectrum of the UV bulb, thus affecting the adhesion and scratch resistance of the cured ink film.</p>

This is a test product which is still in development. For this reason, no assurances are currently given as to type conformity, processability or long-term performance characteristics. Therefore, the customer uses the product entirely at their own risk with no guarantee.

Before starting a production run, it is necessary to test samples of each newly designed part systematically with regard to the specifications for the intended use (e.g. climatic chamber, resistance, etc.).

The information contained in the technical information/instruction sheets or other product information sheets is based on product testing conducted by Pröll. Because printing and environmental factors critically affect each individual ink application, the above mentioned information and instructions represent only general recommendations concerning product characteristics and directions for use and should not be construed as representing express warranties regarding the product. The information and instructions in no way release the purchaser from his obligation to verify and test the inks and their application for the specific request, regarding: product characteristics, weather resistance, mixing proportions, gloss, thinning, special mixtures, printability, drying speed, cleaning, effects on or of other materials to be contacted and safety precautions. All details contained in the instruction sheet "General Information on Screen Printing Inks" are to be considered. The further manufacture and use of products containing our inks by the purchaser takes place beyond our control, and the responsibility for further application and use of our product resides solely with the purchaser. Pröll disclaims any warranties, express or implied.

This information supersedes all previous technical information.