



Matt Lacquer ATM 1

scratch and chemical resistant

Solvent-based Screen Printing Lacquer

Area of Application and General Characteristics

Matt Lacquer ATM 1 is a solvent-based formable matt lacquer system for overprinting polycarbonate film instrument (e.g. speedometer panels).

Printed films are excellent deep-drawable by vacuum and high pressure forming. The matt lacquer can be used as well for matting high gloss films made of PC and rigid PVC. The screen printed deep matt lacquer surface has a soft grip and shows good scratch and chemical resistances.

Special Lacquer

Matt Lacquer ATM 1/015 UV stabilized

Color

Colorless, turbid liquid

Auxiliaries

Hardener

Hardener 004 Recommended quantity of hardener: 6 %

Pot Life

8 hours, depending on quantity and room temperature

Thinner

If necessary the lacquer-hardener mixture can be thinned with 5 to 10 % Thinner M 210.

Processing of Matt Lacquer ATM 1

Fabrics

Polyester fabric 77 threads/cm (195 threads/inch)

Stencil

Solvent resistant emulsions must be used. Excellent results during long production runs are achieved by using Pröll Diazo-UV-Polymer Emulsion Norikop 10 HQ.

Drying

Matt Lacquer ATM 1 is a physically curing, printable lacquer which dries by evaporation of solvents. Curing also occurs in the stack.

To speed up this process, warm air tunnel dryers are a **MUST!** Drying on racks is not suitable as solvents will penetrate the PC film and these retained residual solvents will cause problems as described under "Post Curing".

Matt Lacquer ATM 1

Drying Hints

When using a 3-section dryer, a temperature of 70 – 80 °C (158 – 176 °F) is recommended for the first two sections.

The last section is to cool the prints.

The drying test results depend on the buildup of the previously printed ink layers, thickness of the lacquer and performance of the dryer.

Post Curing

For further processing of printed films, sufficient evaporation of solvent residues must be guaranteed.

Solvent residues can cause damage during climate resistance tests and/or use of the finished parts.

Post curing on PC materials should be done in an oven with adequate ventilation and air circulation.

Post curing conditions:

75 – 90 °C (167 – 194 °F), for one to two hours, depending on application.

Despite the total curing which take place under these conditions, the lacquer remains flexible enough for the high pressure forming process normally used in producing three dimensional instrument gages.

Cleaning of Screens and Utensils

UNI-REIN A III

Shelf Life

Exposure of Matt Lacquer ATM 1 to temperatures below 15 °C (60 °F) may cause flocculation. Heat moderately to approx. 30 °C (86 °F) while stirring to return product to a homogeneous consistency.

Do not store at temperatures below 15 °C (60 °F) to avoid flocculation.

Matt Lacquer ATM 1 may be stored unopened in its original packaging until date given on label.

Important

Allow the lacquer as well as all the auxiliaries to be added to adjust to room temperature in the closed container before use.

Printing results, to a large extent, depend on the substrate, buildup of the ink to be overprinted, 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. Substrates or ink layers may have been treated with or contain sliding agents, antistatics or other additives which will impair the adhesion of the lacquer.

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.