

## POLYCOL® UNO

### Solvent resistant, one-component photopolymer emulsion

POLYCOL UNO is used for the production of high-quality, solvent resistant stencils. On account of its easy application and decoating, ideal for industrial use with large quantities of stencils and/or large format stencils. POLYCOL UNO is suitable for almost all requirements for graphic screen printing.

**SENSITIZING** Not applicable, ready-to-use.

**DEGREASING** Before coating it is recommended to clean and degrease the screen mesh to achieve reproducible coating results. Ensure proper tension of the screen mesh. Use manual degreasers of the PREGAN range or KIWOCLEAN degreasing concentrates for automatic units (see separate technical information). After thorough rinsing with water and drying the screens are ready for coating.

**COATING** The coating of the screen generally begins from the printing side in order to fill the mesh openings. Only then begin with the emulsion build-up from the squeegee side, e.g. 2-1, 2-2, 2-3,... The use of a coating machine is especially recommended because it achieves an even and reproducible coating result.

**DRYING** In order to achieve highest resistances of the screen printing stencil, the coated screens have to be dried well before exposure. This should preferably be done in a dust-free drying-chamber with fresh-air inlet at temperatures of between 35-40°C.

**EXPOSURE** The stencil is created by UV-light hardening of the non-printing stencil parts. Expose with blue actinic light at a wave length of 320-380 nm. A metal halide lamp provides the best results.

Due to the many variables that determine the actual exposure time, accurate exposure times cannot be given. Optimum copying results can only be achieved by trials (step exposure). For best resistances, please choose an exposure time which is as long as possible. This maximum exposure time must still allow reproduction of fine details.

#### Guide values:

Light source: 5000 W metal halide lamp at a distance of 1 m. Automatic coating (MA) with KIWOMAT MODULAR, trough type R 125.

Mesh	Coating sequence*	Stencil build-up thickness	Average exposure time
120-34 Y	1D-1R (MA)	5 ± 1 µm	90-160 s
120-34 Y	1D-1R/1R (MA)	10 ± 1 µm	130-230 s
150-31 Y	1D-1R (MA)	4 ± 1 µm	90-160 s
150-31 Y	1D-1R/1R (MA)	6 ± 1 µm	110-190 s

\*D = printing side, R = Squeegee side, -: in one coating process, /: following coating process

**RETOUCHING/  
BLOCKING-OUT**

For retouching / blocking - out use products of the KIWOFILLER range. Ask your KIWO distributor or KIWO for advice.

**DECOATING**

In general, stencils made using POLYCOL UNO can easily be decoated with PREGASOL products. This also holds for decoating in automatic units that usually do not offer mechanical support of the decoater. If screens are coated in advance or if printed screens are not immediately decoated, it is recommended to store them protected against UV-light or daylight to prevent post-hardening and hence additional difficulties in decoating.

**NOTICE**

Please note that the printing resistance of a screen printing stencil is influenced by a lot of parameters e.g. mesh, coating technique, drying, exposure time etc. Furthermore, a lot of printing media and printing machines are being used in practice which have not all been tested by us. Therefore, please accept our offer and test the suitability of our products by asking for emulsion samples, as we can only guarantee a constant quality according to our own working conditions.

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**COLOUR**

Green

**VISCOSITY**

Approx. 3800 mPas (Rheomat RM180, MS 33,  $D = 100 \text{ s}^{-1}$ , 23°C)

**HEALTH HAZARDS/  
ENVIRONMENTAL  
PROTECTION**

Please follow further information given in the material safety data sheet.

**STORAGE**

18 months (at 20 - 25°C). Protect against freezing.

Screens coated in advance: approx. 8 weeks (at 20°C and in complete darkness)

When storing precoated screens for a longer period of time, the copying material can absorb humidity from the environment. Dry again prior to copying.