

KIWOCOL[®] 18

Solvent resistant, fast exposure Diazo-photoemulsion

KIWOCOL 18 is a fast exposure, solvent resistant Diazo-photoemulsion. Especially suitable if large quantities of stencils or large format stencils (poster printing) are required and when the UV-light source is set at a longer distance. KIWOCOL 18 is resistant to solvent based and UV reactive printing inks, screen openers, retarders, solvent cleaners etc.

SENSITIZING With DIAZO NO. 4

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 print side in order to fill the mesh; only then begin the emulsion build-up by coating 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 The screen must be dried thoroughly before exposure to achieve the highest ink resistance. 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 350-420 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 ink resistance, please choose an exposure time that is as long as possible. This maximum exposure time must still allow reproduction of fine details.

Guide values:

Light source: 5.000 W metal halide lamp at a distance of 1 m. Manual coating (H), e.g. twice from the printing side, then 3 times from the squeegee side [2D/3R(H)], or automatic coating with KIWOMAT MODULAR (MA), coating trough R 125.

Mesh	Coating sequence	Stencil build-up thickness	Average exposure time
100-40 Y	2D/2R (H)	4 ± 1 µm	90-130 s
	2D/3R (H)	7 ± 1 µm	110-150 s
120-34 Y	2D/2R (H)	3 ± 1 µm	90-130 s
	2D/3R (H)	6 ± 1 µm	100-140 s
120-34 Y	1-1 (MA)	2 ± 1 µm	80-120 s
	1D/1D-1R/1R (MA)	4 ± 1 µm	90-130 s
	1D/1D-1R/1R/1R (MA)	7 ± 1 µm	110-150 s
150-31 Y	1-1 (MA)	2 ± 1 µm	80-120 s

*D: Coating from the printing side, R: Coating from the squeegee side

-: in one coating process, /: following coating process

RETOUCHING/

For retouching / blocking-out use products of the KIWOFILLER range.
For further information contact your KIWO distributor or KIWO direct for advice.

DECOATING

In general, stencils made using KIWOCOL 18 can easily be decoated with PREGASOL products.

Use a PREGAN post-cleaner to remove any ink residue or so-called ghost images that may remain on the screen after decoating. Trials are absolutely essential as the type of residue may vary. Please make tests and ask for samples.

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 that have not all been tested by us. Therefore, please accept our offer and test the suitability of our products by asking for free-of-charge emulsion samples, as we can only guarantee a constant quality according to our own working conditions.

COLOUR

Unsensitized: blue
Sensitized: green

VISCOSITY

Approx. 6.500 mPas (Rheomat RM 180, MS 33, D = 100 s⁻¹, 23°C)

HEALTH HAZARDS/ ENVIRONMENTAL PROTECTION

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

STORAGE

Unsensitized: 12 months (at 20 - 25°C). Protect against freezing
Sensitized: approx. 6 weeks (at 20 - 25°C)

Screen coated in advance: approx. 4 weeks (at 20 - 25°C and in complete darkness). Dry again prior to copying.