

AZOCOL[®] POLY-PLUS H-WR

Chemically curable Diazo-UV-polymer photoemulsion

AZOCOL POLY-PLUS H-WR is used for the production of high-quality, water resistant stencils. Due to a relatively good solvent resistance, ideal for long runs with water based plastic inks, which in most cases also contain solvents or monomers. The printing resistance can considerably be increased by chemical hardening with KIWOSET K-T. Before hardening, AZOCOL POLY-PLUS H-WR can be decoated with PREGASOL products.

SENSITIZING

With DIAZO NO.1

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

The screen must be dried thoroughly before exposing 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 350-400 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 with the KIWOMAT MODULAR (MA), Coating trough R 125.

Mesh	Coating sequence*	Stencil build-up thickness	Average exposure time
77-55 W	1D-1R	6 ± 1 µm	30-40 s
77-55 W	1D/1D-1R/1R	14 ± 1 µm	45-60 s
51-70 W	1D-1R	17 ± 1 µm	50-75 s
51-70 W	1D/1D-1R/1R	30 ± 2 µm	90-140 s
43-80 W	1D-1R	25 ± 2 µm	75-110 s
43-80 W	1D/1D-1R/1R	50 ± 3 µm	140-240 s

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

-. in one coating process, /: following coating

HARDENING

Depending on the printing resistance various hardeners of the KIWOSET range are suitable. Generally, KIWOSET K-T is used which is free from solids. For special requirements, other hardeners can also be used. Ask your KIWO distributor or KIWO direct for advice.

RETOUCHING/ BLOCKING-OUT

For retouching / blocking-out use products of the ESTELAN range. When printing with solvent based inks, products of the KIWOFILLER range are suitable. When printing with aqueous inks, preferably use water based products which dry water resistant. These can be removed with PREGASOL decoating agents and a high pressure water washer. For further information contact your KIWO distributor or KIWO direct.

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.

COLOUR

Unsensitized: blue
Sensitized: green

VISCOSITY

Approx. 4100 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: 1 year (at 20 - 25°C). Protect against freezing.
Sensitized: approx. 3 weeks (at 20 - 25°C)

Screens coated in advance: approx. 1 week at 20°C and in complete darkness. Dry again prior to copying.