

AZOCOL[®] POLY-PLUS W

Water resistant, Diazo-UV-polymer photoemulsion with a high solids content

AZOCOL POLY-PLUS W is used for the production of high-quality, water resistant stencils. A relatively high solvent resistance makes it especially suitable for printing with solvent and aqueous printing inks as e.g. water based acrylic inks or dispersion based adhesives. The extraordinarily high solids content of approx. 45% permits a good equalization of the mesh structure.

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

When using meshes of over 100 threads/cm, manual coating must be done slowly. At least three coatings from the printing side are recommended, only then begin with the emulsion build - up from the squeegee side (e.g. 3-1, 3-2,...). The use of a coating machine is especially recommended because it achieves a good emulsion build-up with a 1-1 or 1-2 coating.

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 350-420 nm. A metal halide lamp provides the best results.

Due to the many variables that determine the actual exposure time, no accurate values can 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. This is especially important when water based printing inks are used, as the required ink resistance in this case will be achieved by a higher exposure time.

Guide values:

Light source: 5.000 W metal halide lamp at a distance of 1 m. Coating with V2A-coating trough, e.g. three times from the printing side and once (3-1) or four times (3-4) from the squeegee side.

Mesh	Coating technique	Average exposure time
100 - 40 orange	3-1 / 3-4	60 sec / 120 sec
51 - 73 white	2-1 / 2-4	1 min / 2 min
34 - 90 white	2-1 / 2-4	3 min / 5 min

POST-HARDENING

When printing with very aggressive inks the printing resistance can be increased by post-exposure (approx. 5 min) on the squeegee side of the dried stencils. The printing resistance can further be increased by post-hardening with KIWOSET HP (see separate TECHNICAL INFORMATION).

**RETOUCHING/
BLOCKING-OUT**

For retouching / blocking-out use products of the KIWOFILLER range. 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.

DECOATING

In general, stencils made using AZOCOL POLY-PLUS W can easily be decoated with PREGASOL products. Use a PREGAN post-cleaner to remove any ink residue of so-called ghost images which may remain on the screen after decoating. Trials are 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 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. 6.700 mPas (Rhemomat 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 (20 - 25°C). Protect against freezing.
Sensitized: approx. 6 weeks (20 - 25°C)

Screens coated in advance: approx. 4 weeks at 20°C and in complete darkness. Dry again prior to copying.