Replaces Technical Information dated 22.10.03 Update: 21.03.06

AZOCOL® POLY-PLUS HV

Highly viscous Diazo-UV-polymer photoemulsion

AZOCOL POLY-PLUS HV is used for the production of high-quality, solvent and water resistant stencils. High viscosity and solids content make it especially suitable for the coating of coarse mesh or for stencils that require a high coating thickness (electronic industry, gasket printing,...).

SENSITIZING With DIAZO NO. 9

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 the KIWOMAT 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. This is especially important when water based printing inks are used, as the required ink resistance in this case will be achieved by the exposure time.

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.

KISSEL + WOLF GmbH · In den Ziegelwiesen 6 · D-69168 Wiesloch · Telefon ++49 62 22 /5 78-0 · Telefax ++49 62 22/5 78-100

update: 22.10.03

Mesh	Coating technique*	Stencil build-up thickness	Average exposure time
51-70 W	1D-1R	17 ± 1 µm	70-120 s
51-70 W	1D/1D-1R/1R	34 ± 2 µm	150-200 s
43-80 W	1D-1R	21 ± 2 µm	140-230 s
43-80 W	1D/1D-1R/1R	42 ± 3 µm	250-350 s
21-140 W	1D-1R	38 ± 3 µm	240-320 s
21-140 W	1D/1D-1R/1R	60 ± 4 µm	480-600 s

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

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

RETOUCHING/ BLOCKING-OUT

For retouching / blocking-out use products of the KWIOFILLER 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 HV can easily be decoated with PREGASOL or KIWOCLEAN products. The copying material of stencils with a high build-up thickness should be washed down from the squeegee side with a high-pressure water-washer.

Use a PREGAN post-cleaner to remove any ink residue or 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 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. 11.500 mPas (Rheomat RM 180, MS 33, D = 50 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. 2 weeks at 20°C and in complete darkness. Dry again prior to copying.