Replaces the Technical Information dated 12.04.10 Update: 30.06.12

KIWOCOL® 227

Water resistant Diazo-photoemulsion

KIWOCOL 227 is used for the production of stencils which are resistant to aqueous printing media and plastisol inks. Mainly used for T'shirt and ceramic printing. Easily decoatable.

SENSITIZING With DIAZO NO. 3

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: 5.000 W metal halide lamp at a distance of 1 m:

Mesh	Coating technique	Average exposure time
77 - 55 (T) white	1-1 (H)	approx. 40 - 50 sec.
120 - 34 (T) yellow	1-1 (H)	approx. 40 - 50 sec.

POST-HARDENING Stencils made using KIWOCOL 227 permit long print runs without post-treatment when printing with aqueous inks. Under extreme circumstances, the screen can additionally be post-hardened. Stencils which are to be decoated can be hardened with KIWOSET DC. For achieving high printing resistance commonly KIWOSET E-WR is being used, exceptionally when facing extreme requirements KIWOSET A-WR. Stencils hardened with KIWOSET E-WR and A-WR cannot be decoated anymore.

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

This data sheet is for your information, a legally binding guarantee of the product's suitability for a particular application cannot be derived. No responsibility can be undertaken for occurring damages. Our products are subject to a continuous production and quality control and leave our factory in perfect condition.

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and a high pressure water washer (KIWOFILLER WR- or -SWR products). Ask your KIWO distributor or KIWO direct for advice.

DECOATING

The screen which has thoroughly been cleaned from ink residue with either water or suitable solvent based cleaners (e.g. KIWOCLEAN AQ products) can be decoated with PREGASOL products. Due to the high resistance of the photoemulsion, usually a high pressure water washer is necessary. Use a PREGAN post-cleaner to remove any ink or resin residue. 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: Violet
Sensitized: Brown-violet

VISCOSITY

Approx. 9.000 mPas (Rhomat RM 180, MS33, D = 100 s^{-1},23°C)

HEALTH HAZARDS/ ENVIRONMENTAL PROTECTION

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

STORAGE

1 year (at 20 - 25°C and tightly closed original container). Protect against freezing.

Screens coated in advance: approx. 4 weeks (at 20°C and in complete darkness). It is advisable to dry again at 35 - 40°C prior to copying.