Replaces technical information dated 17.07.03

Update: 04.05.07

CERACOP® 2300

Chemically curable Diazo-UV-polymer photoemulsion

CERACOP 2300 is used for the production of high-quality, water and solvent resistant screen and textile printing stencils. The print run resistance can considerably be increased by chemical hardening with KIWOSET K-T. Before hardening, CERACOP 2300 is decoatable with PREGASOL products. Mainly used for textile and ceramic printing.

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 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 - 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 resistances, please choose an exposure time which is as long as possible. This maximum exposure time must still allow reproduction of 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.

Light source: 5000 W metal halide lamp at a distance of 1 m. Exposure factor KIWO-UV-METER PRO: approx. 1. Manual coating (MA) with KIWOMAT MODULAR, type of trough: R 125.

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Mesh	Coating technique	Stencil build-up thickness	Average exposure time
120-34 Y	2-2 (MA)	19 ± 1 µm	75-115 s
77-55 W	2-2 (MA)	20 ± 1 µm	36-43 s
64-64 W	2-2 (MA)	23 ± 1 µm	40-50 s
43-80 W	2-2 (MA)	48 ± 1 µm	60-70 s

*2-2 (MA) = 1D/1D-1R/1R (D = printing side, R = squeegee side)

HARDENING

Depending on the printing resistance required, various hardeners of the KIWO range are suitable. Usually KIWOSET K-T is used which is free from solids. For special requirements, other hardeners can also be used. For further information contact your KIWO distributor or KIWO direct.

RETOUCHING/ BLOCKING-OUT

When printing with solvent based inks use products of the KIWOFILLER SR range. When printing with aqueous inks, preferably use water based products of the KIWOFILLER SWR or -WR range. These dry water resistant and can be removed with PREGASOL decaoting agents and a high pressure water washer. Even two-component screen lacquers of the ESTELAN range are suitable. Ask your KIWO distributor or KIWO for advice.

NOTICE

Please note that the printing resistance of a screen and textile 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. 10.000 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 (20 – 25°C)

Unsensitized: 1 year. Protect against freezing.
Sensitized: approx. 4 weeks

Screens coated in advance: approx. 1 week at 20 - 25°C and in complete darkness. Dry again prior to copying.