

CERACOP[®] HV

Water resistant, highly viscous, chemically curable, dual-cure Diazo photoemulsion

CERACOP HV is used for the production of high-quality, water resistant stencils. High viscosity makes it especially suitable for the coating of coarse mesh or the production of stencils with a high coating thickness. The printing resistance can considerably be increased by chemical hardening with KIWOSET products. Before hardening CERACOP HV is decoatable with PREGASOL products, after hardening decoating is no longer possible.

SENSITIZING

With DIAZO NO. 1. When using very coarse meshes use only half the quantity of water to dissolve the Diazo.

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 range 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).

Guide values:

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

Mesh	Coating technique	Stencil build-up thickness	Average exposure time
51-70 W	1D/1D-1R (MA)	17 ± 2 µm	120-160 s
51-70 W	1D/1D-1R/1R (MA)	31 ± 3 µm	140-190 s
48-80 W	1D/1D-1R71R (MA)	18 ± 2 µm	110-150 s
48-80 W	1D/1D-1R/1R/1R/1R (MA)	35 ± 3 µm	130-170 s
21-160 W	1D/1D-1R/1R (MA)	56 ± 4 µm	240-300 s
21-160 W	1D/1D-1R/1R/1R/1R (MA)	102 ± 5 µm	310-380 s

* D = coating from the printing side, R = coating from the squeegee side

-: in one coating process, /: following coating process, MA = automatic coating

HARDENING

If the copied and dried stencil has to be hardened for long print runs, apply KIWOSET K-T or H-WR (very long print runs) using a brush, with the screen in a horizontal position, onto both sides of the screen. After a reaction time of approx. 15 minutes the stencil can be hardened at 60°C for 1 hour. The screen can alternatively be hardened at room temperature (at least 20°C) for 24 hours.

RETOUCHING/ BLOCKING-OUT

For retouching / blocking-out, use products of the ESTELAN range. Ask your KIWO distributor or KIWO for advice.

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: light blue
Sensitized: green

VISCOSITY

Approx. 20.000 mPas (Rheomat RM 180, MS 33, D = 30 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).

When storing pre-coated screens of a longer period of time, the copying material can absorb humidity from the environment. Therefore, dry again prior to copying.