

CERACOP® 3001 HV

Highly viscous, chemically curable one-component emulsion

CERACOP 3001 HV is used for the production of high-quality stencils. Mainly used for ceramic direct printing. Due to its high viscosity it is especially suitable for the coating of coarse meshes and for the production of stencils requiring a high coating thickness. The print run resistance can considerably be increased by chemical post-hardening. Before hardening CERACOP 3001 HV can be decoated with PREGASOL products, after hardening it is no longer decoatable.

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 320-380 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: 5000 W metal halide lamp at a distance of 1 m. Exposure factor KIWO-UV-METER PRO: approx. 1. Automatic coating (MA) with KIWOMAT MODULAR, trough type R 125.

Mesh	Coating technique	Stencil build-up Thickness	Average Exposure time
51-70 W	1-1 (MA)	Ca. $20 \pm 2 \mu\text{m}$	25-35 s
	2-2 (MA) 1D/1D-1R/1R)	Ca. $38 \pm 2 \mu\text{m}$	35-55 s
43-80 W	1-1 (MA)	Ca. $20 \pm 2 \mu\text{m}$	30-50 s
	2-2 (MA)	Ca. $46 \pm 3 \mu\text{m}$	60-80s
	2-4 (MA) (1D/1D-1R/1R/1R/1R)	Ca. $104 \pm 4 \mu\text{m}$	105-130 s
32-70 W	1-1 (MA)	Ca. $70 \pm 3 \mu\text{m}$	55-75 s
	2-2 (MA)	Ca. $140 \pm 4 \mu\text{m}$	125-180 s
	2-4 (MA)	Ca. $270 \pm 5 \mu\text{m}$	190-260 s
21-140 W	1-1 (MA)	Ca. $40 \pm 2 \mu\text{m}$	130-185 s
	2-2 (MA)	Ca. $74 \pm 3 \mu\text{m}$	180-270 s
	2-4 (MA)	Ca. $180 \pm 4 \mu\text{m}$	220-300 s

(D = Printing Side, R = Squeegee Side)

POST-HARDENING

CERACOP 3001 HV also permit long runs when printing with ceramic inks without post-treatment. Under extreme circumstances, the screen can additionally be post-hardened. Preferably use KIWOSET K-T. For special requirements other hardeners can also be used. For further information contact your KIWO distributor or KIWO direct.

**RETOUCHING/
BLOCKING OUT**

For retouching / blocking-out use products of the KIWOFILLER range. Screen lacquers of the ESTELAN range are also suitable. Ask your KIWO distributor or KIWO direct 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

Light blue

VISCOSITYApprox. 12.000 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

18 months (at 20-25°C). Protect against freezing.

Screens coated in advance: approx. 1 week (at 20°C and in complete darkness). When storing precoated screens for a longer period of time, the copying material can absorb humidity from the environment. Therefore, dry again prior to copying.