

POLYCOL® Z 542 CTS

Solvent and water resistant photopolymer emulsion, one-component

POLYCOL Z 542 CTS is used for the production of high-quality, solvent and water resistant stencils exposed conventional exposure processes or CTS units. Excellent resolution and mesh bridging make it suitable for large format applications (e.g. flat glass).

SENSITIZING Not applicable, as ready-to-use.

In order to achieve very high printing resistance when using aqueous, very aggressive or abrasive printing inks, POLYCOL Z 542 CTS can be sensitized with DIAZO No. 14 in certain cases. The sensitized emulsion can be stored for 2 weeks (at 20-25°C). In this case use only half of the usually recommended quantity of water to dissolve the Diazo so as to avoid a decrease in viscosity.

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 POLYCOL Z 542 CTS can be coated manually or by machine. The use of a coating machine is especially recommended because it permits the equalization of the mesh structure with a comparatively thin coating.

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 between 35-40 °C. In case of large sized screens which do not fit into the drying chamber, at least increase the room temperature (e.g. with an electric heater) and ventilate the humidity.

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 320-420 nm.

When exposing in CTS units, the exposure time is to be determined dependant on the kind of mesh and coating technique according to the instruction manual. Ask KIWO for advice.

Guide values:

Light source: 2500 W metal halide lamp at the distance of approx. 1 m;
Automatic coating with KIWOMAT MODULAR (MA), coating trough R 125:

Mesh	Coating sequence*	Stencil build-up thickness	Average exposure time
77-48 W	1D-1R (MA)	11 µm	15 - 20 s

*D: Coating from the printing side, R: Coating from the squeegee side, -: one coating process

**RETOUCHING/
BLOCKING-OUT**

For retouching / blocking-out use products of the KIWOFILLER range. When printing with aqueous inks, preferably use water based products. These dry water resistant and can be removed with PREGASOL products and a high pressure water washer. Ask your KIWO distributor or KIWO direct for advice.

DECOATING

Generally, stencils made using POLYCOL Z 542 CTS can easily be decoated with PREGASOL products. Using the Diazo No. 14 additionally, complicates decoating, however, under optimum processing conditions decoating is still possible.

Use a PREGAN post-cleaner to remove possibly remaining ink residue or so-called ghost images. 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 for a constant quality according to our own working conditions.

COLOUR

Blue

VISCOSITY

Approx. 4.700 mPas (Rheomat RM 180, MS 33, D = 50 s⁻¹, 23°C)

**HEALTH HAZARDS/
ENVIRONMENTAL
PROTECTION**

Please follow further information given in the health & safety data sheet.

STORAGE

1 year (at 20 - 25°C). Protect against freezing.

Screens coated in advance: at least 4 months (at 20°C and in complete darkness). Dry again prior to copying.