

POLYCOL[®] Z-HR

One-component, solvent and water resistant emulsion, chemically curable

POLYCOL Z-HR is used for the production of high-quality, solvent resistant stencils. Excellent resolution and mesh bridging make it suitable for the use in Computer-to-Screen (CtS) units. POLYCOL Z-HR is resistant to UV, plastisol, solvent and water based inks.

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-HR 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 Coating can be done manually or by machine. The use of a coating machine with integrated IR-dryer 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 of 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. Most suitable exposure sources are metal halide lamps or digital exposure units (CtS).

Due to the variation of exposure units trials for the determination of the correct exposure time are essential. Please contact the machine manufacturer or ask KIWO for advice.

HARDENING The copied and dried POLYCOL Z-HR stencil can be chemically hardened, e.g. with KIWOSET E-WR. Apply the hardener with a brush on both sides of the stencil in horizontal position. After 15-30 minutes drying time, the stencil can be cured in a drying cabinet for approx. 1 hour at approx. 60°C. Alternatively, the stencil can be cured at ambient temperature (min. 20°C).

This data sheet is for your information. A legally binding assurance of the product's suitability for a specific purpose cannot be derived from it and no liability can be assumed for any potential damages that may occur. Liability for damages due to a slightly negligent breach of duty on our part or on the part of our legal representative or vicarious agent is excluded. Our liability for damages due to injury to life, body or health is not covered by this limitation of liability. Our products are subject to continuous production and quality control and leave our company in perfect condition.

This product is intended solely for industrial applications and not for use by the end consumer. We recommend to our customers to always test the product themselves since only in this way – also after production – can the freedom from certain substances and the suitability for a particular purpose be verified. The user has to test the product for suitability for the intended application. We reserve the right to modify product specifications. Tests that are not part of the specifications of the product mentioned above have not been carried out. All information applies only to the above-mentioned product obtained from Kissel + Wolf GmbH. It corresponds to our current state of knowledge, but is not a confirmation of a particular application and is not automatically replenished.

All information is valid for a maximum of 12 months from the date stated above (annexes may be provided with their own date). Any industrial property rights as well as existing laws and regulations are to be observed by the recipient of our product on his own responsibility. Intellectual property rights of third parties must be observed. Our terms and conditions of sale and delivery shall apply.

**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

In general, stencils made using POLYCOL Z-HR can easily be decoated with PREGASOL products.

Use a PREGAN post-cleaner to remove possibly remaining ink residue or so-called ghost images which may remain on the screen after decoating. 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

Green

VISCOSITY

Approx. 7.000 mPas (DIN 53019, 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). Protect against freezing.

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