

POLYCOL[®] BN 60

Heat curable, one-component photopolymer emulsion

POLYCOL BN 60 is a thermally curable, one-component photoemulsion with an excellent resistance to all common printing inks. Suitable for textile and ceramic inks as well as for plastic, aluminium, UV- and thermoplastic inks. A special field of application is etch printing. Good resolution and edge definition. Before hardening, POLYCOL BN 60 can be decoated with PREGASOL products.

SENSITIZING Not applicable, as ready-to-use.

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 BN 60 can be coated manually or by machine. The use of the a coating machine is especially recommended because it achieves a reproducible coating result.

DRYING The coated 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 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
150-31 Y	1D/1D-1R/1R/1R (MA)	11 µm ± 2 µm	30-50 s
150-31 Y	1D/1D-1R/1R (MA)	9 µm ± 2 µm	25-40 s
120-34 Y	1D/1D-1R/1R (MA)	13 µm ± 2 µm	35-55 s
120-34 Y	1D-1R (MA)	7 µm ± 2 µm	30-45 s

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

HARDENING The copied and dried POLYCOL BN 60 stencil is heat cured for at least 2 hours at 120-130°C. The resistance can be increased by a rising curing temperature or a longer curing time. Ensure that the used frames, meshes and adhesives resist the high curing temperature (metal frames, polyester or steel meshes, frame adhesives, e.g. KIWOBOND 930 and KIWOBOND 1000 HMT).

**RETOUCHING/
BLOCKING-OUT** Before hardening, POLYCOL BN 60 is suitable for retouching / blocking-out. After hardening, use two-component lacquers of the ESTELAN range. Repair work in the printing machine can be made with ESTELAN 440.

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 Blue

VISCOSITY Approx. 1.800 mPas (Rheomat RM 180, MS = 33, D = 100⁻¹, 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: approx. 4 weeks (at 20°C and in complete darkness). Dry again prior to copying.