TEXSOL® 460 D

Water resistant, chemically curable Diazo sensitized photoemulsion

TEXSOL 460 D is used for the production of high quality textile printing screens and has a very mild odour, although being chemically curable. Due to its excellent resolution and very good detail reproduction, it is ideal for printing fine halftones and drawings. For small to medium printing runs, TEXSOL 460 D can be used unhardened. After hardening with KIWOSET K-T, very long printing runs can be achieved. Use KIWOSET A-WR for very aggressive printing pastes (e.g. very acidic printing pastes, etc). Before hardening, TEXSOL 460 D can be easily decoated with PREGASOL decoating agents. Hardened screens are no longer decoatable.

SENSITIZING With DIAZO NR. 1

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 In textile printing, as a rule, screens are coated 1-1, i.e. once from the printing side and once from the squeegee side. When printing coarse Asian mesh, we recommend to coat once from the printing side and, after intermediate drying, once from the squeegee side. The use of a coating machine is especially recommended as it achieves an even and reproducible coating result.

DRYING For achieving highest printing resistances, the coated textile printing screens have to be dried carefully before being exposed. Drying should be effected in a dust-free drying cabinet at a temperature of 35-40°C.

EXPOSURE The printing stencil is produced by hardening of the non-printing screen area with UV-light. Blue actinic light in the wave length range of between 350-420 nm is required, especially suitable light sources are metal halide lamps.
Owing to the high number of parameters that can have an influence on exposure time, no absolute values can be given. Optimum exposure results can only be achieved by trials (step exposure). In order to achieve highest resistances, the exposure time has to be the maximum time still showing a good resolution of the finest details.

Guide values:
Light source: 5000 W metal halide lamp at a distance of 1 m. Coating with a V2A coating trough, once from the printing side and once from the squeegee side (1-1).

Mesh	Average Exposure Time
77-55 (T) white	30 sec
51-70 (T) white	40 sec
43-80 (T) white	50 sec

HARDENING

If the copied and dried TEXSOL 460 D screen needs to be chemically cured to achieve very long printing runs, apply hardener with a brush onto both sides of the flat screen in a horizontal position; as a standard, KIWOSET K-T is used. After a reaction time of approx. 15-30 minutes, put the screen into a drying cabinet for 1 hour at approx. 60°C (KIWOSET A-WR: 40°C) for thermofixation or allow to harden at room temperature (min. 20°C) for 24 hours.

RETOUCHING/ BLOCKING OUT

Products for retouching and blocking out have to be selected depending on whether the screens shall be decoated after printing or not. For screens that are to be decoated, use the water based lacquer KIWOFILLER WR 01, for permanent screens use e.g. the two-component lacquer ESTELAN NDW (see Technical Information). Repair work on the printing machine is done by using the extremely fast drying lacquer ESTELAN 440. For detailed information, please contact your agent or ARC directly.

REMARK

The printing resistance of a textile stencil depends on many different parameters, e.g. type of the screen, coating technique, drying, exposure time etc. Furthermore, in practical work, a large variety of printing media and printing machines are in use, all of which cannot be included in our preliminary tests. Therefore, we ask you to order samples of this photoemulsion, so that you can conduct your own trials under local working conditions. This is the best way to establish that our products meet your requirements. We accept responsibility for consistent screen quality only under our working conditions.

COLOUR

Unsensitized: blue
Sensitized: green

VISCOSITY

Approx. 4100 mPas (Rheomat RM 180, MS=33, D=100 s^{-1}, 23 °C)

SAFETY ADVICE / ENVIRONMENTAL PROTECTION

Please see information given in the Material Safety Data Sheet.

STORAGE (20-25 °C)

Unsensitized: 1 year (in original container)
Sensitized: approx. 3 weeks

Screens coated in advance: approx. 4 weeks (at max. 20°C and in total darkness). If screens which have been coated in advance are stored for a longer period of time, the photoemulsion might absorb humidity from the air. Therefore, dry the screens again before copying.

Store protected against frost.