FOTECOAT 1850

Photopolymer Emulsion For General Graphics Printing as a Dual-Cure Replacement

1. DESCRIPTION

 Resistant to solvent-based, UV-cured, plastisol, and water-based inks. Blue color, 36% solids and medium viscosity.

2. APPLICATION ADVANTAGES

• High speed dual-cure replacement (3X) with no mixing, no diazo stains and long shelf life.

3. MANUAL AND MACHINE COATING

- Manual: The ready-to-coat emulsion can be used by the 1/2 or 2/2 technique
- The viscosity is ideal for coating machines
- To produce a flatter stencil profile and a lower Rz-value to improve the print edge sharpness
 - additional coatings are possible after intermediate drying. The stencil thickness increases by
 1-2 microns and the Rz-value is lowered with each additional coat onto the dried surface
- If the emulsion is poured back into the can after coating, it will be necessary to check before the next coating if the emulsion is degassed completely; check if there are no longer air bubbles on the emulsion surface. The reason is, that like all screen-emulsions, air is sucked into the emulsion during stirring or coating. Such air bubbles are the main cause for pinholes.

4. STENCIL QUALITY

The excellent wet hardness and the low swelling characteristics during the wash-out produce stencils with unique mesh bridging characteristics. Therefore an excellent stencil edge sharpness is guaranteed. Coupled with the very high resolution power at short exposure times, unsurpassed quality stencils are achieved on dyed mesh or steel if the correct coating technique and drying position is used.

5. PACKAGING

Available in 1, 5 and 50 gallon containers.

5. STORING

This ready-to-coat emulsion should be stored in a closed can, protected from direct a light. Protect also against freezing.

Condition	Service Life
Unsensitized, 65-77° F storage	2 years
Pre-coated screens in total darkness at 68° F	4 weeks

6. EXPOSURE TIMES

- All light sources with a spectral light output between 340-400 nm can be used
- Metal halogen lamps with an iron charged burner or a gallium/iron burner are ideal
- The loss on UV-light during the working time of the lamp must be considered (approximately 10% per 100 burning hours)
- This emulsion has a very high light sensitivity. The exposure latitude is therefore reduced. This needs a careful step wedge to find the optimum result in respect of exposure time. Longer exposure produces better mechanical resistance of the stencil but shows losses in the resolution
- Exposure time with a 5 kW MH-lamp, type Akticop 3500 S, at 100 cm distance on yellow mesh 120T-34 and 13 microns stencil build-up is approximately 20 seconds. (Coating 1x printing side, 3x squeegee side, wet in wet)
- White mesh is responsible for strong light scattering; the print result will suffer

7. STENCIL REMOVAL

Standard reclaiming methods & equipment normally used to reclaim direct emulsion stencils can be used. Use Fotechem 2092 to remove ink residues. Apply Fotechem 2040 concentrated emulsion remover, diluted according to instructions, to remove the stencil. Use Fotechem 2086 haze remover to eliminate any stubborn stains or residues.

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