FOTECOAT 1860

SPT Sales + Marketing GmbH
FOTECO REMCO SAATI

Fotopolymer Emulsion for production of solvent resistant stencils

1. DESCRIPTION

- Fast presensitized emulsion, ready-to-coat, free of Diazo
- Completely solvent resistant and very easy to decoat
- Available in green colour with high contrast
- Solid content 35%; high viscosity
- Economic to use

2. APPLICATION ADVENTAGES

- No mixing; does not need degassing: therefore less pinholes
- Best print results are achieved on dyed polyester and steel mesh
- Good resolution and stencil edge sharpness
- Low viscosity for manual and machine coating
- Thanks to the matt stencil surface static problems can be avoided
- Can be removed with the usual remover products

3. MANUAL AND MACHINE COATING

- Manual: The ready-to-coat emulsion can be used by the 2/3 technique. Because of the high viscosity of this emulsion the same technique can be used for coarse mesh.
- The viscosity is ideal for coating machines. If necessary the emulsion can be thinned with water without losing light sensitivity.
- 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 µm 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

Thanks to high solid content and the perfect viscosity an excellent mesh bridging is reached. The edge definition is reasonably good. Coupled with high resolution characteristics and the short exposure time excellent stencils on both dyed and white mesh or on steel mesh can be produced if an adequate coating technique is used. On white polyester the definition is somewhat lower and the exposure latitude decreases.

5. EXPOSURE TIMES

- All light sources with a spectral light output between 340-405 nm can be used
- Metal halogen lamps with a photopolymer bulb 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 with a photo-polymer bulb at 100 cm distance on yellow mesh 120-34 and 14 µm stencil build-up is approximately 40 seconds. (Coating 2x printing side, 3x squeegee side, wet in wet)
- White mesh is responsible for strong light scattering; the print result will suffer. On 120-34 White at 14 µm, 20 seconds exposure time are needed.
- If fluorescent tubes are used we recommend only super actinic (solarium) tubes.

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6. 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, 18-25°C storage	24 months
Pre-coated screens in total darkness at 20ºC	4 weeks

7. STENCIL REMOVAL

All commercial decoaters can be used. A high pressure gun is recommended. Stencil removal is only possible, if the screen has not been hardened chemically.

FOTECO offers several stencil removers:

- **FOTECHEM 2005** Paste
- **FOTECHEM 2042 S** decoater concentrate 1:30

Ghost images can be removed with **FOTECHEM 2089**.

FOTECO
Eine Marke von SAATI

Our technical advice whether spoken, written, or through test trials corresponds to our current knowledge to inform about our products and their use. It is not meant as an assurance for certain properties of the products nor their suitability for each application.
You are, therefore, obliged to conduct your own tests with our supplied products to confirm their suitability for the desired process or purpose. The selection and testing of products for specific final application is exclusively your responsibility.

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