

FOTECOAT 1072

Dual-Cure Photopolymer Emulsion

1. DESCRIPTION

- Fast, dual-cure diazo photopolymer screen process emulsion with separate diazo sensitizer powder, for solvent based inks.
- Purple colour, excellent definition and resolution
- Solvent and humidity resistance
- The ready-made stencil can be post-hardened by UV-light to increase the ink suitability and to facilitate stencil removal.
- Short exposure time

2. APPLICATION ADVANTAGES

- 38% solid content before sensitizing (approx. 34% after sensitizing)
- Medium viscosity, ideal for very fine meshes
- Can be coated wet on wet without intermediate drying to reach on a 120/34 polyester mesh a stencil build-up below the mesh of approx. 12 microns.
- Stencils made with **FOTECOAT 1072** can be printed with aggressive inks containing solvents and can be decoated with the usual chemicals.

3. COATING TECHNIQUE AND STENCIL BUILD-UP (TROUGH WITH 0.75 MM R)

Mesh	Coating	Stencil Thickness over mesh
77/55 PW	2/3	20 µm
120/34 PW	1/2	10 µm
120/34 PW	2/3	14 µm
120/34 PW	2/3, +2	16 µm

- To reach a flatter stencil surface and to lower the Rz-value to improve edge sharpness of the print, 1 or 2 additional coats can be applied after the intermediary drying cycle. Stencil thickness will increase by 1-2 microns and the Rz-value goes down to 6-7 microns.
- **FOTECOAT 1072** is ideal for machine coating. If necessary the emulsion can be diluted with water.

4. STENCIL QUALITY

- Definition and resolution are excellent and reaches approx. 40 microns.
- The stencil surface is mat and has no tendency to stick to the substrate during the printing process or to the film positive.
- The stencil edges show excellent mesh bridging.
- A Rz-value of 7-8 microns is reached at 14 microns stencil thickness.

5. STORING

The freshness of the diazo controls the pot life. Age, transportation and storing conditions influence the quality of the emulsion drastically.

Condition	Service Life
Unsensitized, 18-25°C storage	24 months
Sensitized, stored at 20 °C (pot life)	3-4 weeks
Pre-coated screens in total darkness at 20°C	4 weeks

6. EXPOSURE TIMES

5 kW metal halide lamp at 100 cm distance; photopolymer bulb at 100 hours operating time.

Coating	Mesh	Time in seconds
1/2	120/34 W	45
1/2	120/34 Y	80
2/3	120/34 W	60
2/3	120/34 Y	90
2/3 +2	120/34 Y	120
2/3	77/55 Y	140

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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**.