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TECHNICAL INFORMATION

Küsnacht, February 1999

FOTECOAT 1010

1. Description

- Fast, dual cure diazo photopolymer screen process emulsion with separate diazo sensitizer powder in sachets, for solvent based and co-solvent ink systems (inks containing a combination of solvents and water) including water based graphic arts inks and aqueous UV inks.
- Light purple color.
- Medium viscosity.
- Short exposure time.
- Ecologically sound.
- Must be processed and stored at temperatures not over 20°C.

2. Application advantages

- 40% solids content before sensitizing (approx. 36% after sensitizing).
- Can be coated wet on wet without intermediate drying cycle to reach a flat stencil profile with an Rz-value of approximatively 7 - 8 at 10 - 12 microns.
- Low odour.
- Stencils made with FOTECOAT 1010 can be printed with all ink systems containing both solvent/water or only solvents.

3. Coating technique and stencil build-up (coating trough .75 mm R)

<u>Mesh</u>	<u>Coating</u>	<u>Stencil thickness below mesh</u>
77-55 polyester monofilament	2/3	16 microns
90-48 polyester monofilament	2/3	12 microns
120-34 polyester monofilament	2/2	9 microns
150-31 polyester monofilament	1/2	6 microns

- 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 decrease to 6 - 7 microns.
- FOTECOAT 1010 is ideal for machine coating. If necessary the emulsion can be diluted with water.

4. Stencil quality

Definition and resolution are excellent. Perfect mesh bridging is possible. After wash-out the stencil is very hard and has low swell characteristics. Printing with most ink types is possible.

For long runs with aqueous textile inks and pure water media, FOTECOAT 1915 WR, FOTECOAT 1065 or 1636 are recommended.

5. **Storing**

- Unsensitized up to 1 year } Age, transportation and storing conditions
- Sensitized and stored at 20°C (pot life): 2 weeks } influence the quality of the emulsion drastically.
- Shelf life for storing of pre-coated screens in the dark at 20°C: 2 months }
- The freshness of the diazo controls the pot life.

6. **Exposure times**

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

<u>Stencil thickness below mesh</u>	<u>Type of mesh</u>	<u>Time in seconds</u>
6 microns	150-31 yellow	45
9 microns	120-34 yellow	55
12 microns	90-48 white	40
16 microns	77-55 white	70

For fine details a post exposure is recommended.

7. **Removal**

- All commercial decoaters can be used. A high pressure gun is recommended.
- FOTECO offers several stencil removers:
 FOTECHEM 2004 liquid; FOTECHEM 2005 paste;
 FOTECHEM 2042 concentrated liquid decoater (1:30) for machine decoating;
 FOTECHEM 2048 is a more efficient liquid concentrate (1:30) for decoating;
 FOTECHEM 2044 powder.
- The longer the exposure, the better the through-curing of the stencil. If necessary make a post exposure. Both render the decoating easier.

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