

FOTECOAT 1090

Dual-Cure Emulsion for Rotary Screen Printing Compatible with Industrial Discharges

1. DESCRIPTION

- Blue, dual-cure photopolymer screen emulsion
- Sensitizing with separate diazo powder C119 dissolved in 300 g water to make 4,8 kg set.
- The ready to print screens can be polymerized to obtain mechanical and chemical resistance.
- Developed for conventional, laser, digital (wax and ink jet) and DLE engraving.
- Optimum resolution for fine lines and half-tones

2. APPLICATION ADVANTAGES

- 45% solid content after sensitizing (approx. 34% after sensitizing)
- Excellent adhesion to nickel screens
- Excellent water- and solvent resistance
- Extra good flexibility

3. SENSITIZING AND MIXING

- Dissolve the dose of diazo preferably with demineralised water, filling half bottle and shake vigorously.
- For bottom to top coating and top to bottom double squeegee, mix 1000 g of **FOTECOAT 1090** only with dissolved sensitizer.
- For best results, use the emulsion after 12 hours from mixing to enable air bubbles to escape.

4. SCREEN PREPARATION AND DEGREASING

Thoroughly degrease the rotary screen prior to use with **FOTECHEM 2003**. Dry and store rotary screen in a dust free, dry environment.

5. COATING

- For bottom to top method by hand or machine, apply one coat and dry at 40°C (104°F) . If higher thickness is requested, after drying apply 1/2 coats more, dry again.
- Using double squeegee, top to bottom, we suggest a coating speed of 1-2m/min. Only one coat is sufficient to guarantee perfect resistance.

6. DRYING

Thoroughly dry the coated screen at a temperature of 40°C (104°F) in a well-ventilated oven.

7. EXPOSING

- For photo engraving, the exposure time depends on the light source, the mesh count and the length of the cylinder
- For example, expose a 125 mesh, 1m length, coated top to bottom using double squeegee for 6 minutes with blue fluorescent tubes or for 8 minutes using a xenon 6 kW lamp.
- When different coating methods are used, you must adjust exposure times depending on the emulsion thickness.

8. DEVELOPING

Soak the engraved screen in a tank of water for 5 to 10 minutes or use an automatic washing machine. In either case, ensure a thorough final rinse.

9. RECLAIMING

Before polymerization, you may remove **FOTECOAT 1090** with **FOTECHEM 2005** Decoater Paste and / or **FOTECHEM 2042 S** Decoater Concentrate.

10. POLYMERIZATION

Place the screen into oven at 190-200°C (374-392°F) for one hour, starting when temperature indicated is reached. After polymerization the stencil is permanent (not reclaimable anymore).

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1. HEALTH AND SAFETY

Before using, refer to appropriate Safety Data Sheet.

12. 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	12 months
Sensitized, stored at 20 °C (pot life)	2-3 weeks
Pre-coated screens in total darkness at 20°C	1 week