

TRIO 2 SR

1. Description

- Fast, solvent resistant screen emulsion.
- Blue color with excellent see-through.
- Suitable for sensitizing with diazo powder or ammonium dichromate.
- Ideal for humid and warm climates.
- Economic, biologically sound. No warning on the label.
- The diazo sensitizer powder is supplied separately in sachets under the code A2 for 1 kg Sets; A7 for 4,5 kg Sets.

2. Advantages for the application

- On polyester 120T a stencil thickness below the mesh of approx. 10 microns can be reached by 3 coats from the printing side and 5 coats from the squeegee side, wet on wet. 8 microns are achieved by the 2/3 coating technique.
- The coating technique with intermediate drying cycles can be used. The stencil maker does not have to change his coating technique; in many cases however one coating stroke can be saved.
- Very high resistance against solvent based inks and UV-curing inks.
- Nevertheless TRIO 2 SR is easy to decoat. High pressure is necessary for aggressive inks.
- Excellent adhesion and anchorage to the mesh; a strong water spray can be used for wash-out.
- Partial areas of the finished stencil can be covered with tape or water soluble screen filler for multi-color work with one stencil. The screen filler can afterwards be washed out with water without damaging the stencil.

3. Printing advantages

- Very high resolution with excellent definition both for positive and negative printing.
- The flow-out of the emulsion after coating and during the drying cycle is extremely good so that relatively thin stencils below the mesh can be coated, creating at the same time a flat-bottomed stencil which is hardly influenced by the mesh structure.
- 8 - 10 microns are sufficient in combination with polyester 120T for positive printing; 12 - 14 microns for negative printing.

4. Shelf-life and storing

- Unsensitized up to 1 year.
- Sensitized at 20°C 4 - 6 weeks (sensitised with Diazo).
- Coated screens can be stored in the dark at 20°C during 2 - 3 weeks (sensitised with Diazo).
- If sensitised with bichromate, the pot life is reduced to 1 day.

5. Technical indications

- Content of solids: 26% unsensitized.
- Viscosity: This medium viscosity is ideal for polyester and steel mesh. TRIO 2 SR can be coated on very fine fabrics and on coarse meshes by adapting the coating and drying technique to the mesh type. For meshes over 150T the screen emulsion can be diluted with water.
- Sensitizing: With ammonium dichromate: Dissolve 7 gr of ammonium dichromate in 100 ccm of water and add this solution to 900 gr of emulsion, or dissolve 35 gr of ammonium dichromate in 500 ccm of water and add this solution to 4,0 kg of emulsion. Stir well and let degas before using. See separate instructions for the use of ammonium bichromate.
- Exposure times:
5 KW metal halide lamp at 100 cm distance (type Actikop 3500 S) at 100 hours operating time:

<u>Coating technique</u>	<u>Type of mesh</u>	<u>Time in seconds</u>
1/2	120 T white	40
1/2	120 T dyed	80
2/3	120 T white	50
2/3	120 T dyed	75
2/3; + 2	120 T dyed	100
2/3	77 T dyed	150
2/2	43 T white	170

- Stencil color: Light blue, with very good transparency.
- Resolution: 50 microns positive,
70 microns negative.
- Edge definition: Very good. The printing result depends on the mesh number, the mesh color, the coating and drying technique and the final dry stencil thickness below the mesh.
- Solvent resistance: Very good; also against aggressive cleaning solvents.
- Water resistance: Reasonable good; screen filler can be washed out with water.
- Sensibility against humidity: Minimum.

- Decoating:
 - Remove ink first with adequate solvent as soon as possible after printing, then decoat.
 - Add 5 – 10 litres of water to 100 gr of FOTECHEM 2044 Remover Powder
 - or
 - use FOTECHEM 2005 Paste with brush.
 - FOTECHEM 2004 Liquid is appropriate.
 - Because of the hardness of the stencil the decoating medium should stand for 10 - 15 minutes on the stencil before it is washed-out. Under difficult conditions the removal operation has to be repeated.
 - If decoating equipment is used a higher concentrated solution is necessary and a degreasing cycle before decoating is recommended.
 - Ghost pictures can be removed with FOTECHEM 2085 (blend of emulsifying solvents) followed by FOTECHEM 2080 (high alkaline paste).

- Ability for machine coating: Excellent and without problems; the screen emulsion can be diluted with water if the viscosity is too high. The exposure time does not change.

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