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FOTECOAT 1811 SOLO

Presensitized screen emulsion; red, solvent and humidity resistant

1. Description

- High viscosity for coarse and fine meshes.
- Excellent flow-out avoiding pin-holes caused by too fast coating.
- 29% solids content for the ready-to-use emulsion.
- Usable on white and yellow mesh.
- Medium exposure time with outstanding exposure latitude on dyed mesh.
- Can be exposed with almost all light sources; standard white actinic tubes need double exposure compared to super actinic purple light tubes.
- Superior wet hardness after wash-out.
- Fast wash-out.
- Excellent resistance to solvent based inks and its screen washes.
- Decoatable with all chemicals used for emulsion stencil removal.
- Attention has to be paid to environment light; work and open can under yellow or tungsten light only; avoid day or stray light.
- Is not affected by high humidity.
- Can be dried at temperatures up to 60°C.
- Can be hardened chemically with FOTECHEM 2100 or 2130 to improve the water resistance; the stencil however might become slightly less flexible.
- Post-exposure is not necessary and would not improve the stencil resistance.

2. Application advantages

- No mixing (diazo-free) needed.
- Does not need degassing (do not pour back into same can).
- Can be coated wet on wet or, after an intermediate drying cycle, with additional coats on the printing side to reduce the Rz-value or on the squeegee side to reinforce the stencil for very long print runs.
- Can be coated by machine or by hand, ideally with a coating trough with a lip radius of 1 mm.
- Can be stored for two years.

3. Recommended coating technique

- 1/2 or 2/3 manually, wet in wet.
- Dry print side down for wet in wet technique.
- After an intermediate drying cycle dry print side up.
- Machine coating: 1x up both sides simultaneously.

4. Stencil quality

- On polyester mesh 120-34 yellow:
  Coating 2/3 results in 12 microns stencil build up proud of mesh.
  Resolution: 50 microns
  Definition: Outstanding edge sharpness and mesh bridging.
- On polyester mesh 120-34 white:
  Coating 2/3 results in 12 microns stencil build up proud of mesh.
  Resolution: 120 microns
  Definition: Good edge sharpness and mesh bridging.

5. Storing

- Storing time of the screen emulsion: 2 years
- Storing time for coated screens in complete darkness: 6 months
- The emulsion must be kept with closed can lid at all times and coated screens must be protected against actinic light.

6. Exposure times

With 5KW metal halide lamp with photopolymer bulb at 100 cm distance and 100 operating hours:

120-34 yellow:	90 seconds (2/3 coating, 12 microns)
120-34 white:	70 seconds (2/3 coating, 12 microns)
43-90 yellow:	180 seconds (1/2 coating, 12 microns)
43-90 white:	140 seconds (1/2 coating, 12 microns)

7. Screen wash

FOTECHEM 2090 is an economic and efficient low-evaporating screen wash. Odorless, prevents ghost pictures.

8. Stencil removal

- The old rule is valid: The better the hardening of the stencil system through a longer exposure time, the easier the stencil removal.
- This screen emulsion is free of diazo. Therefore no brownish residues on the mesh; the removal of ghost images is simplified.

FOTECHEM 2004	Liquid, ready-to-use.
FOTECHEM 2044:	Powder, add 7 – 10 liters of water to 100 gr.
FOTECHEM 2005:	Paste, ideal for large size stencils; the paste stays on.
FOTECHEM 2042:	Liquid concentrate for dilution with 30 parts of water, ideal for machine decoating.

- The stencil removal is simplified if the ink is removed immediately after printing. Then firstly degreasing with FOTECHEM 2003 Gel ready-to-use or
  FOTECHEM 2033 Concentrate, diluted 1:10, is recommended.
- To speed up removal a high pressure device is recommended.
  Important: Hose off with soft spray first to remove the chemicals, then only use the power spray.
- Ghost images: Brush on FOTECHEM 2085 (a blend of emulsifying solvents), then apply FOTECHEM 2080 (high alkaline paste) with a brush; let stand for maximum ½ hour, then hose off with mild spray before the residues are removed with a high power spray. Increase pressure to 100 bar or higher if residues are very stubborn.

9. Safety and health

FOTECOAT 1811 SOLO is classified “non-dangerous good”. It does not need warning labels.
FOTECOAT 1811 SOLO is harmless for the sewage water and at the working place if standard industrial precautions are followed.

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