Fotec AG Eigenheimstr. 22 CH-8700 Küsnacht
P.O.Box 1123 Switzerland
Phone: +41 44 913 30 00 Fax: +41 44 910 45 25
e-mail: info@fotec.ch www.fotec.ch

TECHNICAL INFORMATION Küsnacht, November 1988

FOTECOAT 1711

1. **Description**
   - Diazopolymer screen emulsion with separate diazo-powder sensitizer for solvent based inks.
   - Light purple after exposure with excellent transparency.
   - Ideal for humid and warm climates.
   - Economic, biologically sound. No warning on the label.

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 FOTECOAT 1711 is easy to decoat. High pressure 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.
   - Coated screens can be stored in the dark at 20°C during 2 - 3 weeks.

5. Technical indications

Content of solids:	27% unsensitized.
Viscosity:	Approx. 16'000 cps This high viscosity is ideal for polyester and steel mesh. FOTECOAT 1711 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.
Exposure time:	Approx. 50% of a normal diazo screen emulsion.
Stencil color after exposure:	Light purple, 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:	Reasonably good; screen filler can be washed out with water.
Sensibility against humidity:	Minimum.
Decoating:	Easy; possible without high pressure unit. A de-greasing cycle before decoating helps to prevent ghost pictures. Use FOTECHEM 2005 paste or 2044 powder or 2042 liquid concentrate.
Stencil and ink residues caused by inadequate cleaning and de-coating:	Can be removed with FOTECHEM 2085 (blend of emulsifying solvents) followed by FOTE-CHEM 2080 (high alcaline paste).
Ability for machine coating:	Excellent and without problems; the screen emulsion can be diluted with water if the viscosity is too high.

5. Exposure times / stencil thickness below mesh with FOTECOAT 1711

The times below are achieved with a 5 KW MH lamp at 100 cm distance, using an iron type bulb at 365 - 400 nanometres with less than 100 burning hours.

Coating	Mesh 120 T white		Mesh 120 T dyed		Mesh 90 T dyed		Mesh 77 T dyed		Mesh 325 steel	
	thickness µ	time seconds	thickness µ	time seconds	thickness µ	time seconds	thickness µ	time seconds	thickness µ	time seconds
1 each side	1	35	1	50	-	40	-	80	1	50
2 /3	8	50	8	75	9	85	12	100	6	80
3 / 5	10	60	10	90	11	110	14	130	8	100
2 / 3 plus 2 on printing side after intermediate drying	12	70	2	110	13	130	16	160	12	140

FOTEC AG