



Fotec AG

Phone:

e-mail:

Eigenheimstr. 22 CH-8700 Küsnacht

P.O.Box 1123 Switzerland

+41 44 913 30 00 Fax: +41 44 910 45 25

info@fotec.ch www.fotec.ch

TECHNICAL INFORMATION

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FOTECOAT projection emulsions

FOTEC AG manufactures presensitized (ready to use) screen emulsions, solvent resistant, water resistant and co-solvent resistant for projection. For very fine meshes fast diazo emulsions for magnifications of 3-5 x (with special equipment) can be used.

Projection emulsions can be used for large size screens exposed by contact or prepared by a CtS system resulting in very short exposure times (see separate Technical Information).

1. True projection emulsions (1-component, diazo-free)

FOTECOAT 1884 WR:	water resistant	Code BT
FOTECOAT 1884 SR:	solvent resistant	Code BK

2. Slower, 1-component (diazo-free) screen emulsion for magnification factors of 3-5x

FOTECOAT 1850 SOLO:	solvent resistant	Code BR
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3. Diazo sensitized screen emulsions adequate for projection with magnification factors of 3-5x

FOTECOAT 1010:	solvent/water resistant	Code DC
FOTECOAT 1970:	solvent/water resistant (favourable price)	Code DB
FOTECOAT 1915 WR:	water/solvent resistant	Code DR

The screen emulsions mentioned under point 3 can be supplied in 20 kg pails, diazo sensitized.

Storing time: 4 weeks. They can only be used under adequate circumstances.

Product description for FOTECOAT projection emulsions

The following information refers to a magnification factor of 5, on polyester mesh white 120-34/cm (305-34/"), coating 1x print side with PROKA objective 400. The fastest FOTECOAT emulsion carries the exposure factor 1,0.

The other screen emulsions show the exposure factor in relation to the fastest emulsion with 1,0.

FOTECOAT 1850 SOLO: For solvent based inks

- Solids content: 37 %
- Viscosity: 5'500 cps at 25°C
- Color: gray-blue
- Light absorption: peak 340 nm
- Exposure factor: 6,6

FOTECOAT 1884 SR: For solvent based inks

- Solids content: 24 %
- Viscosity: 4'000 cps at 25°C
- Color: light blue
- Light absorption: peak 340 nm
- Exposure factor: 1,0

FOTECOAT 1884 WR: For aqueous inks

- Solids content: 36 %
- Viscosity: 3'000 cps at 25°C
- Color: light blue
- Light absorption: peak 340 nm
- Exposure factor: 1,5

FOTECOAT 1010: For co-solvent inks and flash dry aqueous UV inks

- Solids content: 35 % after sensitizing
- Viscosity: 7'000 cps at 25°C
- Color: purple
- Light absorption: peak 365 nm
- Exposure factor: 7,3

FOTECOAT 1970: For UV inks

- Solids content: 33 % after sensitizing
- Viscosity: 6'000 cps at 25°C
- Color: blue
- Light absorption: peak 365 nm
- Exposure factor: 14,0

FOTECOAT 1915 WR For sublimation ink

- Solids content: 41 % after sensitizing
- Viscosity: 4'000 cps at 25°C
- Color: purple
- Light absorption: peak 365 nm
- Exposure factor: 10,0

FOTECOAT 1850 SOLO, 1010 and 1970 can be post-exposed to improve the ink suitability and consequently the removal.

FOTECOAT 1010, 1970 and 1915 WR are dual-cure diazo emulsions and offer a superior tonal value reproduction. But they should be used with the **new** Proka light source only.

Coating

Use the FOTECOAT projection emulsions preferably on **white** mesh. Machine coating is recommended to achieve uniform coating thickness. For machine application coat just once upwards on the print side. Blade radius should be 0.50 or 0.75 mm.

Only when using dyed mesh or mesh numbers 120-34/cm (305-34/”) and finer machine coating on both sides simultaneously should be used.

Drying

The coating must be perfectly dry. If the coating contains even the smallest amount of moisture, sensitivity will be strongly reduced.

Film positive

Because all imperfections on the film positive are magnified, the quality of the film in respect of density, clean lines and sharpness is of highest importance.

Wash-out

Wash-out must be done as even as possible with a minimum of pressure. Because projection does not allow complete curing of the emulsion (lack of light intensity), automatic wash-out equipment must be adjusted carefully for uniform spraying, overlapping and pressure.

Reclaiming

Can be done with all FOTECOAT emulsions in combination with the usual stencil chemicals. Recommended is the FOTECHEM 2004 liquid, the FOTECHEM 2005 paste, the FOTECHEM 2044 powder and the FOTECHEM 2042 liquid concentrate.

Important: Because projection emulsions are not cured (hardened) completely during exposure, decoating can be more difficult. Adaption of the automatic equipment can be necessary.

Shelf-life of FOTECOAT projection emulsions

- 1-component screen emulsions: 2 years
- diazo emulsions unsensitized: 12 months at 20°C and 50 – 70% RH
- diazo emulsions after sensitizing: 2 – 4 weeks at 25° and maximum 65% RH

Packaging

- 6 x 4,5 kg cans in one export carton
 - 20 kg pail
 - 120 kg drum with special tap outlet on request
- } only for one-component emulsions

Diazo emulsions: 6 x 4,5 kg or diazo sensitized by FOTEC AG: 1 x 20 kg.

Health and safety

No warning labels needed except for FOTECOAT 1010. Keep away from children, food and beverages; for industrial use only. Safety data sheets are available on request.

FOTEC AG

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