

AGFA

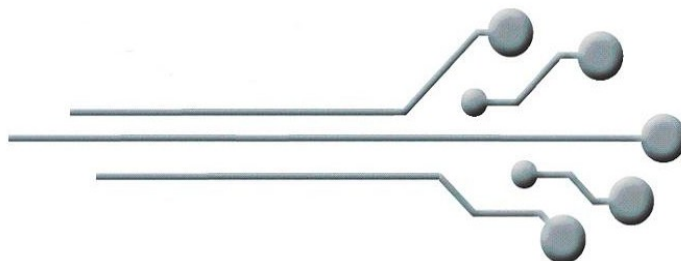


Specialty industries

CPF & DPF
Technical Information

December 2005

Idealine



Technical Information

Idealine CPF is a U.V.-sensitive contact film.

Idealine DPF is a U.V.-sensitive, direct-positive film suitable for making working copies for printed circuits as well as for cartographic and reprographic applications.

These films can be handled outside the darkroom in bright white artificial light. They yield excellent results in Idealine and rapid access processing.

Thickness of the polyester base: 0.18 mm (.007").

■ Applications

The films are used for high quality work in the PCB industry, chemical milling and for cartographic and industrial applications with high demands for image quality, scratch resistance and dimensional stability.

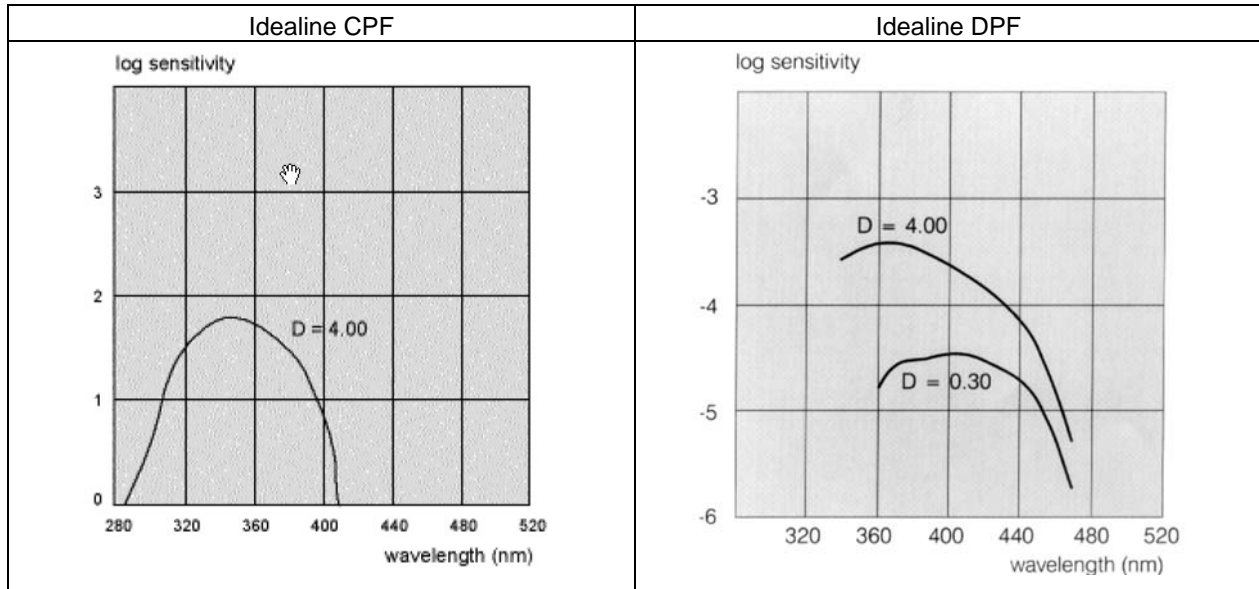
■ Characteristics

- Excellent line sharpness
- High resolution
- Excellent line sharpness and line edge straightness
- Good dimensional stability
- Wide exposure and development latitude also gives accurate line width control
- High scratch resistance
- Clear visual distinction between emulsion and back of the film
- Consistent quality and controllable line width
- Optimal film transport and vacuum behavior
- A special protective layer, applied to both sides, ensures uniform contact exposure, thus avoiding the occurrence of Newton rings, and makes it possible to work with short vacuum times
- Stable chemistry and low consumption

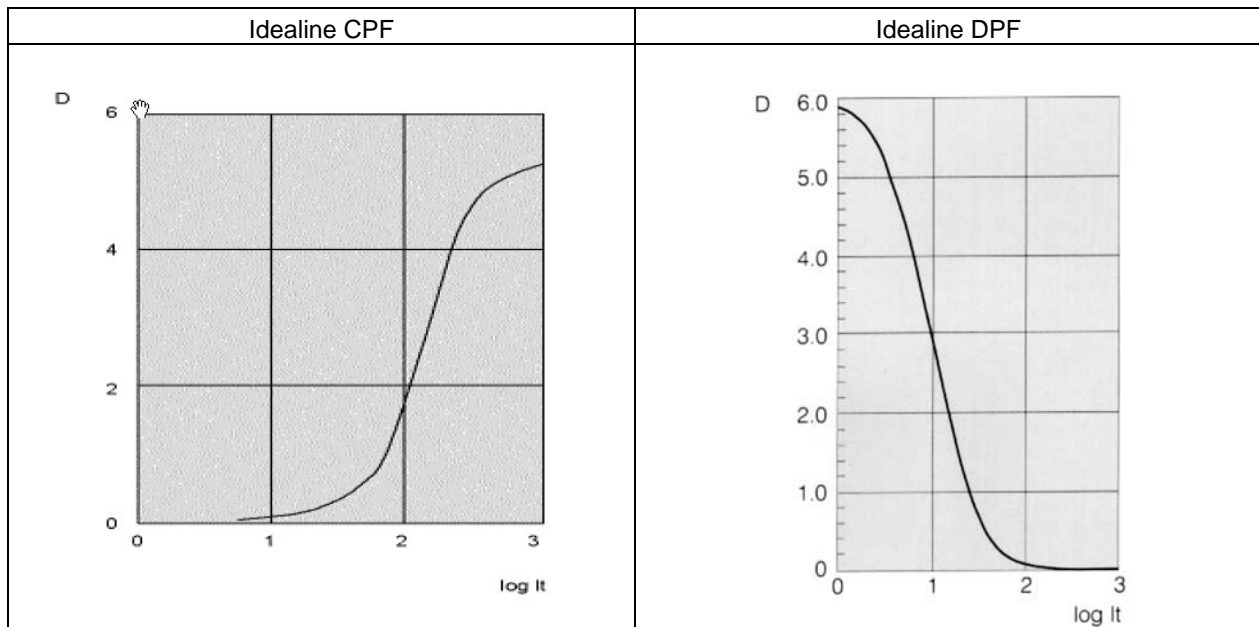
■ Photographic data

- Colour sensitivity:

CPF and OPF are U.V.-sensitive



- Characteristic curves



■ Storage

Non-processed photographic film has a limited shelf life. Unopened boxes can be safely kept until the expiry date mentioned on the label. Film boxes are preferably kept flat, at a temperature of 21 °C and at 50% relative humidity. Temperature and relative humidity in the storage room must be kept within strict tolerances to avoid dimensional changes.

Remove the outer packaging and the shrink foil before taking the film into the plotter room, to avoid dust being dragged into the plotter area.

■ Production guidelines

Workroom lighting

CPF and DPF can be handled in low-U.V. bright white light. The film can be subjected to room lighting of an intensity of 300 lux for maximum 1 min 30 s.

OPF: Red light, e.g. Agfa R6 or EncapSulite R20.

Temperature and relative humidity must be kept within strict tolerances to avoid dimensional changes.

If the conditions in the workroom are different from the storage room, the film should be allowed to acclimatise before use.

Exposure

Important

Proceed carefully in order not to damage the film. Take care that film sheets do not slide on top of each other. Do not apply strong local pressure on the film. Avoid dust contamination.

The material should preferably be exposed with a powerful U.V.-light source such as the Theimer TH 1007 metalhalide lamp. When exposure is carried out with a 1000 W TH 1007 lamp at half luminous intensity and at 85 cm distance, the exposure time is approx. 7 seconds..

Processing

Idealine films can be processed in rapid access machines.

Recommended processing conditions

Developers	Pdev / Vdev / D-IM
Developing time	In AgfaLine 86 HT: 35 s at 32 °C / 90 °F
	In Rapiline 72-3 HT: 30 s at 35 °C / 95 °F
Developer replenishment	250 ml/m ² or 0.8 oz/ft ² (50 % image blackness) + 2 l or 65 oz / 24hrs against oxidation
Fixer	Pfix / Vfix / F-IM
Fixer replenishment	500 ml/m ² or 1.5 oz/ft ² without fixer electrolysis 125 ml/m ² or 0.4 oz/ft ² with fixer electrolysis (50% image blackness)
Wash	At 20 °C for optimum dimensional stability

■ Packaging

All Idealine films are supplied in special packaging for optimum protection during transportation and storage. The packaging is humidity tight for best dimensional stability results. A shrink foil protects the inner packaging against dust and scratches. With the selection of the packaging materials the possibility to recycle was taken in account. The amount of packaging material is reduced.



■ Dimensional stability

The combination of the polyester base with the Idealine emulsions ensures maximum dimensional stability. However the film will stretch with increasing temperature or relative humidity in the workroom. It will shrink with decreasing temperature or relative humidity conditions. An optimum adjustment of the dryer temperature in the processor will enable you to produce phototools with correct dimensions.

The film characteristics have some influence on the dimensional stability of phototools, but attention must be paid to the correct working conditions and the use of film and equipment. Your Agfa representative will be pleased to give you more information.

Thermal expansion coefficient	Relative humidity coefficient	
	Before processing	After processing
18 $\mu\text{m} / \text{m}^\circ\text{C}$ or 0.0018 % / $^\circ\text{C}$ 10 $\mu\text{m} / \text{m}^\circ\text{F}$ or 0.0010 % / $^\circ\text{F}$	13 $\mu\text{m} / \text{m} \% \text{RH}$ or 0.0013% %RH	12 $\mu\text{m} / \text{m} \% \text{RH}$ or 0.0012% %RH

Subject to modifications without prior notice.
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