

FUJIFILM PLOTTER FILM HG HPB-7S

Satisfine : Satisfine series are quality enhanced films for photo-mask making use.

FEATURES

PLOTTER Film HG HPB-7S is one of the films in Fujifilm's new Satisfine PCB film series. It is designed for laser photoplotter drawings. Our unique charged accelerator emulsion technology used for HQ System provides the following features.

1. HG HPB-7S has sensitivity and contrast suitable for laser photoplotters with Argon laser, Blue LED and Green laser. It is suitable for use in contact work.
2. HG HPB-7S is suitable for processing with the Fujifilm HQ system developer, which provides high quality and consistent results.
3. To eliminate false signals with AOI (Automated optical inspection), there is small matte on emulsion side.
4. The film backing layer has incorporated a newly developed electroconductive grain to provide permanent protection from static.
5. HG HPB-7S has wide exposure latitude, allowing accurate reproduction regardless of exposure variations.
6. HG HPB-7S absorbs less ultraviolet light, allowing the reduction of the exposure time onto the photoresist.

BASE

0.175 mm polyester base

SPECTRAL SENSITIVITY

Orthochromatic

SAFELIGHT

Use a Fuji Safelight Glass SLG-No.6 (dark red) with a 20 watt lamp. Handle the film at a distance of at least one meter away from the safelight.

STORAGE

Film boxes are preferably kept flat, at a temperature of 20°C ~25°C (68°F ~77°F) and at 50~60% relative humidity. Temperature and relative humidity in the storage room must be kept within strict tolerances to avoid dimensional changes.

AUTOMATIC PROCESSING

This film is suitable for processing in various rapid access automatic processors.

In order to obtain "Optimum performance", it is necessary to use the dedicated developer QR-D1. For fixer, use our Fixer UR-F1. For details, see below.

Mixing Chemicals:

Chemical		Dilution Ratio (Chemical : Water)
Developer	QR-D1 *	1 : 3
Developer Replenisher	QR-D1	1 : 2
Fixer	UR-F1	1 : 2
Fixer Replenisher	UR-F1	1 : 2

*You can also use Fuji Developer HR-D1 (chemical : water = 1 : 2)

Processing Conditions:

Step	Chemical	Temperature	Time
Development	QR-D1	32°C ~35°C (90°F ~95°F)	30 sec.
Fixing	UR-F1	25°C ~35°C (77°F ~95°F)	-
Wash	Running water, 5 liters/min.	15°C ~30°C (59°F ~86°F)	-
Drying	-	50°C (122°F) max.	-

Developer Replenishment Rates

The standard replenishment rates are indicated below in milliliters per sheet of 50.8×61.0 cm size film.

Developer replenisher QR-D1 100 ml
 Fixer replenisher UR-F1 120 ml

DIMENSIONAL STABILITY

In general, heat and water can cause dimensional changes in any substance, including films. The operational environment factors of temperature and relative humidity, and the processor conditions can therefore affect film dimension.

Thermal Coefficient of Linear Expansion

Unprocessed or processed film	0.0010 % per degree C
	0.00056 % per degree F

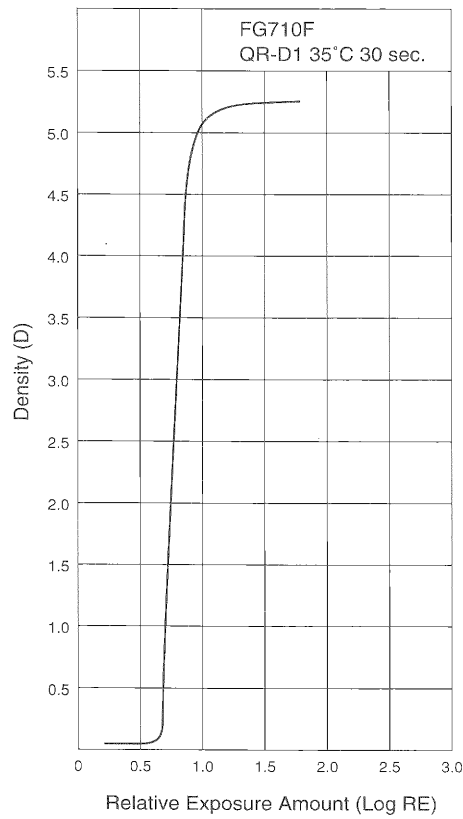
Humidity Coefficient of Linear Expansion

Unprocessed film	0.0011 % per % RH
Processed film	0.0010 % per % RH

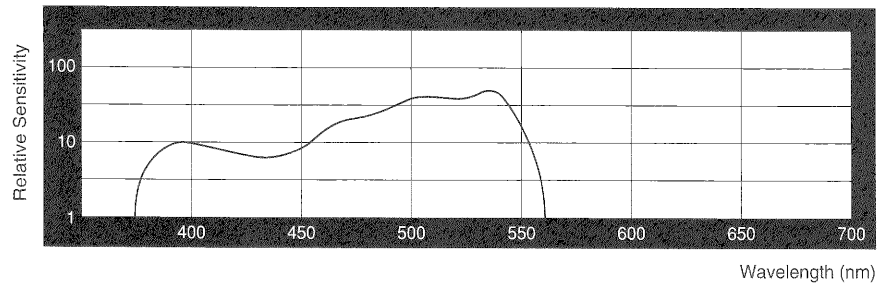
Processing Dimensional Change

Processing Dimensional Change	Dependent on drying conditions
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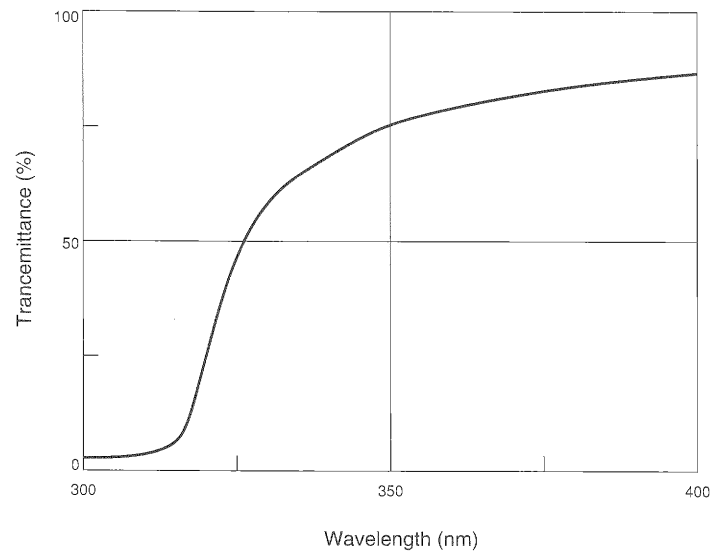
CHARACTERISTIC CURVE



SPECTRAL SENSITIVITY



UV TRANSMITTANCE





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