



TOP HIGH IMAGE CORP.

NO. 20, Jui-Kuan 2nd St., Ta-Fa Ind. Dist., Kaohsiung, Taiwan

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Info. No. 108-1

TP-101 OPERATION INSTRUCTION

1. TP-101 PS plates are single side coated plate for medium to long run use, which produce excellent reproduction of line halftone that perfectly reflect the originals.
2. With the even surface grain structure and good water retaining properties, excellent ink-water-balance are effortlessly achieved.
3. With patented unique of surface chemical sealing process, a clean, near-white non-image area after exposure and development is easily attained.
4. Owing to the very sharp contrast after exposure, the image quality is thus easily to be distinguished before the start of development process.
5. Storing in proper environment process.
6. Highly sensitive coating could greatly facilitate a rapid exposure and shorten the plate making time.
7. Evenly coated sensitive layer and electrochemically grained surface contribute to excellent printing results.

Structure:

The aluminum supporting surface is a combination of coarse grains, medium grains and fine micro-pores. The surface also is processed for water receptivity and coated the photosensitive layer. Due to suitable grain size distributions, make the plate provide strong surface adhesion and excellent hydrophilic receptivity.

Photosensitive layer:

Ester of 2-Diazo-1-Naphtol-5-Sulfonyl Chloride and Resins.

Spectral Sensitivity:

TP-101 PS plates are sensitive to rays in the blue to ultraviolet range. Light sources appropriate to the exposure of PS plates include metal halide lamps, high pressure mercury lamps, and carbon arc lamps.



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Info. No. 108-2

Safe Light:

Yellow fluorescent lamp

Safe Illumination:

At 1.5 m distance from two 40-watt yellow fluorescent lamps: 1 hour.

Conditions:

At 1.5 m distance from two 40-watt white fluorescent lamps: 2 Min.

Direct daylight is prohibited.

Precaution: If direct daylight enters the working area through windows, the windows should be covered with yellow anti-dazzling sheets to prevent light from entering.

Exposure:

Images form areas of photosensitive layer when exposed to light through positive film. The exposed area or non-imaged free areas are removed through development.

Inspection Method:

Gray scale or plate control wedge are suggested for inspection (i.e. Fuji, Kodak, UGRA).

Exposure Time:

Normal exposure time which result in step guide image steps 2 (for proofing). to 3 (for press) becoming clear can be considered as correct.

Exposure Time and Press Life

The photosensitive material used in the positive working plate decomposed through light exposure. If the plate is overexposed, a weak image and shortened press life will be resulted. Sufficient press life is derived when plates are exposed to produce 3 to 4 steps on resulting step guide.

Basic Plate Processing Steps:

	Developing	Rinse	Gumming
TP-101	TP-4 (1:6)	Water	Gum Solution

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*Info. No. 108-3***Hand Development:**

Pour an adequate amount of developer (250 ml for 1030mm x 800 mm size plate) over the exposed plate and rub the surface with a cotton pad or cellulose sponge for 20 sec. Again pour an adequate amount of developer, about 100 ml, over the plate and rub the entire with a cotton pad or a cellulose sponge for another 20 sec. Then rinse with water and apply with gum solution to preserve or for ready use.

Dip development:

First immerse the exposed plate into a tray or deep developer tank for 20 sec. (at 25°C). Then remove the plate from the tray and as in hand development rub the entire surface with a cotton pad or a cellulose sponge to ensure development is completed. Then rinse with water and apply with gum solution to preserve or for ready use.

Automatic Processor Development:

1. Temperature: $25 \pm 2^\circ\text{C}$
2. Time: 20 sec.
3. Brush pressure: $\pm 1\text{mm}$ (measured value)

Application: Sheet / Web fed offset printing (lithographic printing)

Run length: Medium-long run

Exposure: Metal-halide U.V light sources

Reference:

3000W lamp, 360-420nm, at a distance of 100cm approx. corresponding energy is around 30~70 mj/cm²; vacuum contact time of 20~30 sec.; the TP-101 exposure time of 35~45sec; to achieve gray scale step 3 clear and the plate can proved complete 8 μm (micro lines; targets) developer TP-4 : water = 1:6, at temperature of 25°C, dipping time 20 sec.

Dot Resolution: Micro lines targets UGRA up to 8 μm

Dot Reproductivity: 1%~99% (175 lines/inch)

Warranty:

Plates undergo a careful control to ensure a faultless and constant quality. In case of any claim, the batch number mentioned on the plate's reverse side must be indicated, and claimed samples should be sent back for further evaluation.

If the defect is confirmed to be manufacturer's responsibility, we will make duly compensation.