



MASCOPRINT

DEVELOPMENTS LTD

SCREEN & PAD PRINTING EQUIPMENT AND SUPPLIES

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Mascoprint Thin steel cliché plate manufacturing

Product Information Sheet

Product overview

Double-sided presensitised, negative – working steel printing plate for use with pad printing machines.

Characteristics

High quality spring steel plate with a resistance of 170 to 190 kp mm₂ (108 to 120.7t/sq.in). Due to special surface treatment, excellent printing results are obtained for up to 50,000 impressions per plate side.

Processing

- Cut sheet of presensitised steel to the required cliché plate dimensions.
- Remove black protective layer from side to be exposed and etched.
- Place a high-density photopositive film of the artwork to be etched in position on the cliché plate, ensuring the artwork is right reading emulsion down. Ensure that photo-positive film containing any bold logos or lettering is selectively half toned, using a screen no finer than 130 LPI with a 70% elliptical dot, at 45° orientation. Alternatively, a second exposure can be carried out using a sheet of half-toned film positive, although this can impair print quality on any fine line detail.
- Expose to a UV light source with suitable vacuum blanket system to ensure the photo positive artwork and plate are maintained in perfect contact. **Note:** That best exposure time has to be determined for individual light source used.
- Place the exposed plate in a bath of Granosol GR Developer for approximately 2 minutes, then rinse with a strong spray of water.
- Dry the developed plate with compressed air and heat briefly in an oven or dryer tunnel up to 50-60°C (122 - 140°F).
- Retouch the plate under an eyeglass using the red retouching varnish to cover over any pinholes or imperfections and leave to dry.
- Mix 1kg of Mascoprint etching powder with 5 litres of cold water and mix until the sodium crystals dissolve to a clear solution.
- Pour the etching solution into a Mascoprint polypropylene tank and heat to 32°C and activate the integral bubble etch pump.
- Submerge the cliché plate into the etching tank and leave for 3_ minutes to achieve an etch of approximately 27 microns when etching a solid area. To print a half toned image it is necessary to increase the depth of the etch to around 32 microns.
- Remove from the etching tank and rinse under water.
- Remove the etch resist coating using thinners or Granosol coating remover 10 or Seriwash, rinse with water, dry and polish with non abrasive metal cleaner, then oil or grease cliché to protect until ready for use.

