

## Tech Tip 105

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### Silver Film Materials Specifications

The following specifications and recommendations for photographic materials are offered to help achieve optimum quality from the MacDermid liquid photopolymer platemaking system. There are some key differences reflected in the materials and/or procedures recommended here from those used for metal engraving or other platemaking processes.

- 1) The base film should be clear or matte (especially for large platemaking equipment), smooth, and free of handling defects such as nicks and dings. In the platemaking process, some light is intentionally introduced at an angle to produce tapered shoulder walls on images and characters. A heavy matte film scatters light which reduces the etch depth in shadow tones and may broaden images.
- 2) The optical density in clear areas of the negative should be 0.05 or less (as measured on a transmission densitometer) to guarantee good formation and strength of image characters. Black areas should measure  $>4.0$  to avoid reduction in etch depth of mid-tones and shadows and broadened type.
- 3) A right-reading image is required in the emulsion side of the negative.
- 4) Choice of thickness of the negative is not critical, either 4 or 7 mils. Films of different thicknesses should not be used interchangeably on MacDermid liquid photopolymer platemaking units as varying plate heights will result.
- 5) A one-piece negative is recommended. Overlapping, stripping, and taping of multiple negatives may interfere with the capping blade, potentially tearing the cover film.
- 6) A high-contrast negative is needed with the hardest possible dots, without fringes or halos. This is required to get good transmission of the ultraviolet light through the entire dot area into the depth of the plate.