

TechTip#13

Silver Film Material and AVantage® Resins

Specifications and recommendations for using silver film are detailed here to obtain optimum quality reproduction when using AVantage[®] photopolymer resins.

- Use a base film for plates with a clear or a light matte surface. This should be smooth and free of handling defects such as nicks and dings. A heavy matte material may diffuse the UV light too much and fill reverses.
- Use a transmission densitometer to measure the optical density in a clear area of the negative. The optical density should be 0.05 or less. The black area of the negative should measure 4.0+ to avoid reduction in etch deep of the character or mid-tone screens and shadows. The image should be right reading, requiring the emulsion side up on the negative (bronze plate production requires wrong reading negative so the final product will be right reading).
- Negative thicknesses are 4.0 mil and 7.0 mil. The film can be clear or matte format. Clear film is recommended to ensure quality reproduction of the negative. Do not mix negative thicknesses on a liquid exposure unit because the resulting plate will be affected by the 3.0 mil difference in the film.
- A one-piece negative is recommended for platemaking. Overlapping, stripping, or taping negatives together may cause a plate-tolerance problem.
- A high-contrast negative is needed in order to properly expose the photopolymer resin to reproduce the desired dot or screen without halos or fringes. The UV light will transmit through the character area for quality reproduction with quality structure support.
- Use an exposure control guide to help monitor plate quality on a daily basis.

