

Extend Photopolymer Plate Life with Proper Storage

Converters can extend plate life and provide faster turnaround on previously run jobs with proper storage of AVantage[®] liquid photopolymer plates. Too often, converters find plates have degraded while in storage, requiring new plate production that adds to cost and turnaround time. The following steps will minimize plate degradation and extend plate life.

Clean Plates Thoroughly: Clean plates thoroughly after each press run. Residual ink deposits that remain on printing plates foster cracking and surface tack. Dried ink residue makes plates harder to clean prior to the next press run and also impedes performance. Liquid photopolymers should be cleaned immediately after use with detergent and water or a similar plate wash solution. Use a soft bristle brush, lint-free rags, or an automatic plate wash machine. Exercise caution - do not use a solution with a temperature in excess of 140°F. Plates should be completely dry before storage. Leftover cleaner or ink can deteriorate the photopolymer surface.

Avoid Exposure to Light: Store plates after cleaning in a cool, dry place away from any light source. Photopolymer plates cure in the presence of light. Typical light sources include ultraviolet (UV) light such as direct sunlight, or in standard light sources including warehouse lights (unfiltered mercury vapor lamps and metal halide lamps), fluorescent, and incandescent light. If a plate sits in front of a window or other light source for an extended period, eventual damage may occur. Plates stored on cylinders should be wrapped with an opaque material such as black polyethylene film.

Heat: Plates should be stored in a cool, dry storage area. Prolonged heat exposure can affect a plate's physical properties. Heat accelerates UV light degradation and increases the likelihood of ozone cracking, tack, and shrinkage. The best temperature range for plate storage is 70°F - 100°F with a relative humidity of 60-80%. Most photopolymer like printing plates should not be affected by higher storage temperatures (up to 120°F) and higher humidity (up to 90% RH). Good air circulation in the plate storage area will help maintain more consistent temperature and humidity conditions for the plates.

Pre-mounted photopolymer plates can be stored on a hanging rack or stood on edge to maintain their in-the-round, curved position. Plates may be stored in their shipping box to protect them from possible damage. Exercise caution with in-the-round plates. If stored flat, the plate may buckle and separate from the mounting material, damaging it beyond repair.