

Tech Tip 10

Flexo Plate Mounting Techniques

Flexographic plates are usually mounted off-press using any of several types of commercially available mounting and proofing equipment. While mounting practices often are dictated by individual shop requirements and equipment used, there are recommended practices common to all methods.

MacDermid's photopolymer printing plates are flexible and although similar to rubber plates have important differences. These include:

- Photopolymer plates have a stable polyester backing.
- Plates will have greater stretch (or elongation) of image surface after mounting.
- Photopolymer plates are slightly "stiffer" than rubber ones, requiring use of higher tack adhesives.

Tips for Easier Mounting of Photopolymer Plates

Plates must have a clean backing; ensure removal of all polymer deposits during washing. It is helpful to use a solvent such as alcohol or a film cleaner.

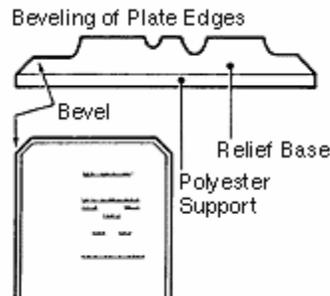
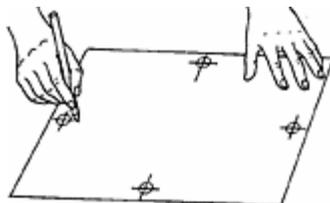


Plate edges should be beveled and plate corners should be trimmed. Trimming should be neat and clean and free of ragged edges. Burrs, if any, should be removed with emery cloth.



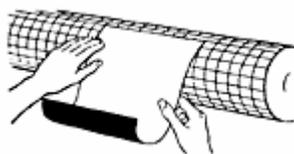
Register marks are normally included on the original artwork and become part of the plate. Register marks also may be drawn on the plate face with a fine-line ball point pen or scribed on the polyester back with a scribing tool. Do not cut through the polyester backing.



Mounting Tapes

Plates are normally mounted using doubleface adhesive tapes commonly known as stickybacks. A variety of tapes are available from commercial suppliers. When ordering, you should specify high tack tapes for photopolymer plate mounting.

Mounting tape should first be applied to the cylinder, leaving the outer release liner in place. Some tapes have specific “cylinder side,” so check to be sure that this side has been applied to the cylinder.



Smooth out and puncture any air bubbles under the tape with a pin or knife to release trapped air.

Optical Mounting

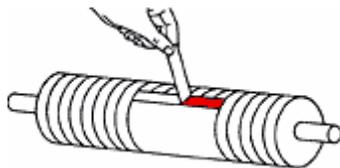
For optical mounting, there are two primary ways to mount plates: leading edge, or plate center.

Leading Edge Mounting

Smaller plates can be easily mounted by following these steps:

- A. Cut a small width (one-inch) strip in the release liner, across the cylinder.
- B. Remove the liner to expose the stickyback.
- C. Position the plate by lining up register marks, then adhere the leading plate edge by firmly applying hand pressure, and smooth.





- D. Slowly remove the remaining liner, rolling and smoothing the plate to ensure firm adhesion.
- E. Avoid entrapment of air between the plate and cylinder.

Center Mounting

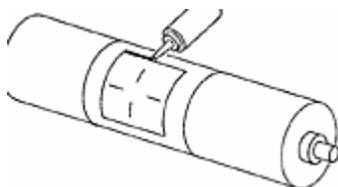
Larger plates may be more easily and accurately mounted from the plate center toward both edges. This technique is similar to that of leading edge mounting, except that the release liner strip is removed from the center rather than from the leading edge.

Adhesion Tips

Regardless of mounting technique, lead or center, pay particular attention to plate edge adhesion, especially leading and trailing edges.

If a cylinder is totally wrapped with adhesive, position the plate on the cylinder so that the butt seam of adhesive does not coincide with the leading or trailing edges of the plate. The plate should cover the adhesive butt seam.

It is recommended that the plate be edge-sealed to ensure optimum adhesion, and to prevent ink solvent attack of the adhesive bond. Any of several commercially available edge sealers are suitable.



Solvent base or hot melt sealants may be used. Apply it in a fine bead along plate edges. Allow to dry or set 15 to 20 minutes. Use extreme caution to ensure sealants do not come into contact with the plate printing surface.



It is recommended that plates be “set” to the cylinder by wrapping it with polyethylene film applied as a spiral wrap, taking care to avoid damaging the plate by wrapping too tightly. If possible, plates should be mounted, wrapped and allowed to set overnight, prior to use.

