

T. I. P. #16

Using Heat and Pressure to Increase Initial Adhesion

It is important to achieve high initial adhesion in the fast turn-around sign fabrication market. This high adhesion helps to reduce the chance for bubbles, wrinkles and edge curl later on in the sign's life.

Most computer and die cut graphic film for use in the sign making market is coated with pressure sensitive adhesive (PSA). This type of adhesive only needs to contact a compatible surface to work successfully but making complete contact can take more time than the signmaker has. Once initial application is made, the adhesive "cold flows" and approximately 72 hours later the adhesive has made contact with all the potential bonding sites. In sign making vernacular, terms such as cure time or set-up time are used to describe the period of time in which cold flow has achieved maximum contact. Although, there is no actual "curing," the idea that graphic film needs time to attain ultimate bond remains valid.

If a higher initial surface bond is needed quickly, the following are several recommendations:

- Apply additional high pressure passes with a hard squeegee for application to flat surfaces.
- Use a finishing pass with a rivet brush on any textured surfaces, including banners and ribbed hollow plastic sheeting.
- Warm the vinyl with a heat gun or torch during installation to help soften the adhesive and allow it to make contact faster.

