

Important Tips on Laminating & Installing CLEAR FOCUS Window Films

Performing a test prior to actual production can minimize costly errors, uncover compatibility issues, and help ensure the success of your project.

Ideally such tests should cover all phases of the production process: Printing, which includes allowing inks sufficient time to outgas; laminating (if applicable), which includes allowing adequate bonding between the overlamine and the window film; and installation, which includes proper prep of the installation surface and following the recommended installation temperature guidelines. As part of the test, make sure that any overlamine, clear coat or other product used is compatible with perforated window graphics film, maintains the film's one-way visibility, and is suitable for the intended application.

Laminating is as much an art as a science. Laminating and installing are challenging because streaks and marks caused by uneven pressure applied by laminator rollers or manually by hand or squeegee can occur yet be difficult to see until after the graphic is installed. To prevent post-lamination issues (e.g., tunneling, wrinkling, etc.), make sure there is proper tension on the laminator unwind/rewind rollers so that neither the overlamine nor the film is stretched during the lamination process. Also ensure that there are no uneven areas on the laminator rollers (caused, e.g., by bowing of the nip rollers — a common problem with hot laminators) or other problems that could cause streaks or marks.

CLEAR FOCUS offers a pressure-sensitive (cold), cast, conformable PVC overlamine called CurvaLam[®] that's designed specifically for perforated window graphics to be installed on flat or simple-curved surfaces. We recommend the use of CurvaLam with our PVC window films because the products' chemical composition and physical properties are so similar. Designed for flat surfaces only, our ClearLam[®] overlamine is thinner than CurvaLam and made of polyester, and therefore does not mate as well with PVC window films. We offer ClearLam primarily as a lower-cost alternative for print shops experienced in laminating.

Before Installing Graphics

- After printing graphics, allow at least 24 hours for the inks to dry and outgas prior to applying overlamine (not required when using UV-cure or latex inks).
- After applying an overlamine, let the graphics sit for at least 12 hours to allow the overlamine's adhesive time to bond adequately to the vinyl film.

Installing Graphics on Curved Surfaces

- Start in the center of the window and install from the center outward to the edges of the glass.
- Peel back part of the release liner and make a V-shaped cut in it (from the top edge of the liner toward the center) to keep the liner out of the way during installation. **Be careful not to cut the film!**
- Avoid stretching the PVC film during installation. The film has a memory and, if stretched, may return to its original shape, causing it to lift off the glass later.
- Avoid using an overlamine on window graphics to be installed on surfaces with compound curves. For such applications we recommend a clear coat/liquid laminate. Even a conformable overlamine such as CurvaLam adds more thickness & rigidity, making it harder to install the graphics on windows with extreme curves.
- If you must laminate the graphics (e.g., to prevent the film's holes from filling with water when it rains), leave the outside edge — approx. 1/4 inch — around the graphics un laminated. That way the center portion of the graphics will be laminated and the un laminated edges will be more pliable and will conform more easily at the edges, where the curvature of the glass is more pronounced.
- If a heat gun is used to install graphics around curves, do not exceed 250°F and apply heat for only a few seconds at a time. Applying too much heat and tension during installation can stretch the film out of shape and deform the holes, as well as negatively impact the film's adhesive properties.
- Use an edge sealer. If the edges of the film have been handled a lot or have been stretched — both of which can adversely affect the film's adhesive — an edge sealer will help prevent them from lifting.
- If all else fails, try using an optically clear, conformable overlamine that's thinner and more conformable than CurvaLam. Check with your distributor for the names of overlaminating films that are compatible with perforated window film and designed for use on compound surfaces.

Questions? Call your distributor or call CLEAR FOCUS at **707-544-7990**
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