EverBright Mirror Film User's Guide

Pressure-Sensitive Adhesive

EverBright Mirror Film is normally supplied with an acrylic-based pressure-sensitive adhesive on the back, protected by a release liner. The adhesive is durable, suitable for outdoor use, and ready for application to a structural substrate. To separate the release liner from the adhesive, place two small pieces of tape at one corner (one on the mirror surface and one on the liner) and gently separate the pieces of tape to lift the liner. After application, allow 48 hours for the adhesive to develop full strength.

Substrate Materials

EverBright Mirror Film is commonly laminated to mill-grade aluminum sheet, whose smooth surface helps preserve the specularity of the finished mirror. Other substrates — including plastic sheeting, fiberglass, and galvanized steel — may also be used. The adhesive bonds well to most materials; however, surface irregularities in the substrate may be visible in the reflective film after lamination. When using EverBright Mirror Film on unusual or low–surface-energy substrates (such as polyethylene or fluoropolymers), adhesion should be verified in advance using a small test sample.

Application Techniques

EverBright Mirror Film should be applied to a suitable substrate using a film laminator equipped with rubber rollers. The film is mounted on the unwind shaft and fed around the application roller, while the substrate is fed between the application and support rollers. During lamination, the release liner is taken up on the rewind shaft and the adhesive is bonded to the substrate continuously, without wrinkles or bubbles.

To improve adhesion and minimize defects caused by trapped dust, the substrate should be thoroughly cleaned prior to lamination. Clean the surface with an appropriate solvent to remove residues, wipe dry, and use a tack cloth immediately before laminating. A practical method is to wrap a tube with tack cloth and wipe across the full width of the substrate just before it enters the rollers. Static bars or anti-static tinsels are recommended to reduce static charge and airborne particle attraction.

Hand application is possible for small areas, but it is more difficult, time-consuming, and results may vary, as small airborne or waterborne particles can create visible defects. If hand lamination is unavoidable, apply a light mist of water to the substrate, remove the release liner, float the film into position, and use a small rubber hand roller or squeegee to expel the water, starting from the center and working outward.

Proper Care of Film/ Cleaning

Use only non-contact cleaning methods when cleaning EverBright Mirror Film. Pressure washing has been shown to clean and restore polymer mirror surfaces as effectively as brush-based cleaning methods used on glass troughs in large-scale solar installations. To reduce mineral spotting, use deionized or demineralized water. Untreated water of high quality can also be used, when mineral content of the water is low.

Film Storage

EverBright Mirror Film should be stored away from direct sunlight, at temperatures below 100°F (38°C), and protected from high moisture. Rolls should be stored horizontally (not standing on their ends), supported evenly, and should only be stacked in boxes, not exceeding five high.

Disclaimer and Scope of Use

This guide is provided for general informational purposes only. Installation methods, substrates, environmental conditions, and system designs may vary, and users are responsible for determining the suitability of the film for their specific use.

EverBright Mirror Film may be supplied with or without pressure-sensitive adhesive, and application methods may differ accordingly. Users should verify bonding methods, mechanical attachment strategies, and long-term performance through appropriate testing under their own operating conditions.

No warranties, express or implied, are provided in this guide regarding performance or fitness for a particular purpose.