

## Piggybacking AerFilm LHR® on Window Panels

### Technical Bulletin

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#### Requirements

1. It is important to verify the existing decorative material remains completely bonded to the substrate panel and can provide a suitable bonding surface.
2. All panels to be covered with decorative laminates shall have a clean surface.
3. Panels shall be completely dry and have no detectable solvent odors prior to covering.
4. The decorative laminates shall be cut in such a manner as to provide sufficient material to completely cover the panel surface to allow for hot tacking of corners.
5. The decorative laminate shall be placed on panels in a manner to ensure that the texture and pattern are in correct alignment on the finished assembly.
6. The decorative laminate, when bonded to the substrate, shall be free of bubbles, foreign particles within the bond, indentations, edge lifting, or any other imperfections that would adversely affect the appearance.

#### Instructions / Procedures

1. Holes should be drilled every inch around recess areas of the panel. The diameter of the holes should be approximately 0.015" (0.38mm) [No. 76 to No. 72 range drill bit].  
NOTE: Additional holes may be necessary around lip areas to minimize the possibility of material bridging.
2. Use a *fine* finishing paper to eliminate rough burrs around drilled holes. Care should be taken not to abrade the existing AerFilm LHR® surface. The adherability to the existing surface is decreased by abrading.
3. The surface to be covered should be cleaned with isopropyl alcohol, acetone or MEK. These solvents should remove any grease or oil contaminants which would adversely affect the adhesion.
4. The use of a primer should be investigated to improve the adhesion of the HA211 adhesive to the existing surface. Schneller recommends using Bostik's 7132 adhesive with Boscodur No. 4, 22 or 24T curing agents.
5. Shake primer until all of the material is in solution. NOTE: The use of a thinning agent is acceptable. The primer should be thinned to a consistency that will either a.) be compatible with current spraying capabilities, or b.) when brush applied, leave no lines.
6. Dry primed panels per the manufacturer recommendations.
7. Check holes in deep draw areas to ensure sufficient vacuum to prevent air entrapment.
8. Cut the decorative laminate to be applied to the panel larger than the panel being covered.
9. Prefit the decorative laminate to the part and tailor it to fit the corners of the part.

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#### Instructions / Procedures (cont.)

10. Place part on the support and position the decorative laminate on the part. Ensure sufficient slack to allow for draw areas.
11. Hold decorative laminate in place by hot tacking to the panel. NOTE: Use only a minimum amount of heat to lightly adhere the decorative to the panel. By using excessive heat, the AerFilm LHR® will tend to shrink and pucker.
12. Place the part into the heat vacuum to bring the blanket down against the decorative, but not so tight that it will pull or stretch the decorative at this time.
13. Using minimal vacuum pressure, evacuate the air under the blanket so that the contour of the part is lightly visible. Vacuum reading should be < 1" of Hg (0.01 bar).
14. With a temperature set point of 212°F (100°C), begin heating. When the temperature reaches approximately 200°F (93°C), vacuum can gradually increase as the panel continues to be heated. A maximum vacuum of 8-10" of Hg should gradually be achieved. Care should be taken not to apply too much vacuum. By applying too much vacuum, the honeycomb panel may collapse.
15. The decorative should be dwelled for 4 minutes at 212°F (100°C).
16. Cool the part while under vacuum to less than 100°F (40°C).
17. Hand wrapping the edges of the panel can be achieved by heating the decorative laminate around the edges of the panel with a heat gun held 6-8 inches (150-205mm) away from the decorative for 5-10 seconds. The temperature of the material should reach approximately 250°F (120°C).
18. Hold one end of the decorative laminate taut, and starting at the panels edge, rub the decorative laminate down progressively.
19. Trim edges of panel to complete the covering process.