

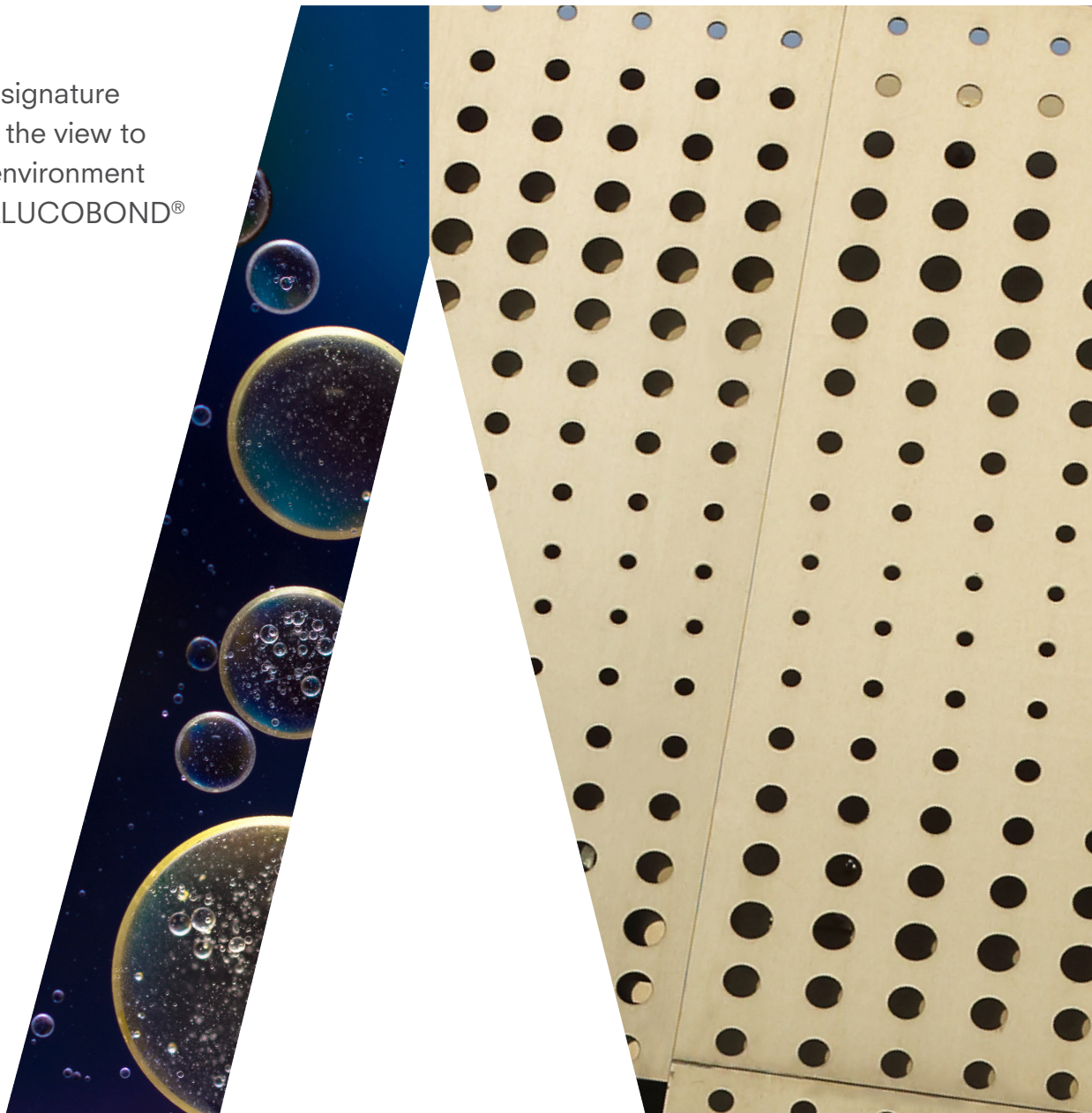
ALUCOBOND® PLUS

GIVING SHAPE TO GREAT IDEAS

LET'S

Perforate

Create your next signature project and open the view to the surrounding environment with perforated ALUCOBOND® PLUS panels.



WHY

Perforation?

Let perforation inspire your next project by bridging Form + Function. Perforating ALUCOBOND® PLUS panels allows for unique design flexibility while maintaining quality and performance.

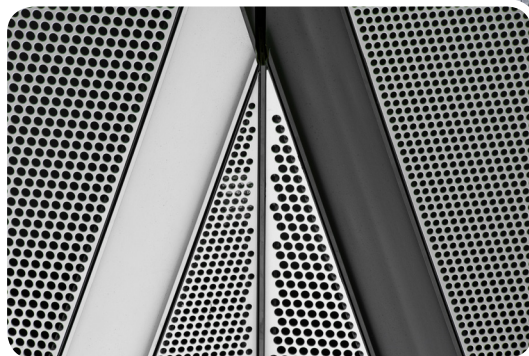
Panels can be perforated in ALUCOBOND® PLUS solid, mica and metallic finishes in geometric, slotted or customized patterns.

MATERIAL DETAILS

- Panels can be perforated in solid, mica & metallic finishes
- 1-side finished or 2-side finished panels
- PVDF paint finish available on both faces of panel
- Perforation patterns can be geometric, slotted, or customized
- Punched or CNC routed holes
- Minimum 1/4" distance from perforation edge to panel edge
- Maximum 45% opening per panel for exterior applications
- Maximum 65% opening per panel for interior applications
- Minimum 3/8" width between perforations
- Finish warranty and panel warranty available

APPLICATIONS

- Creative building facades
- Parking garages
- Fixture displays
- Interiors



PERFORATED

Application Guide

General

The formability of ALUCOBOND® PLUS panels allows for complex shapes and designs for architects and designers. 3A Composites USA is now providing additional guidelines for perforating ALUCOBOND® PLUS panels to provide expanded opportunities for creative aesthetics. Panels with perforations can be utilized in traditional or custom ACM attachment systems, and perforation patterns can be geometric, slotted, or customized. Panels are available in 1-side finished or 2-side finished upon request.

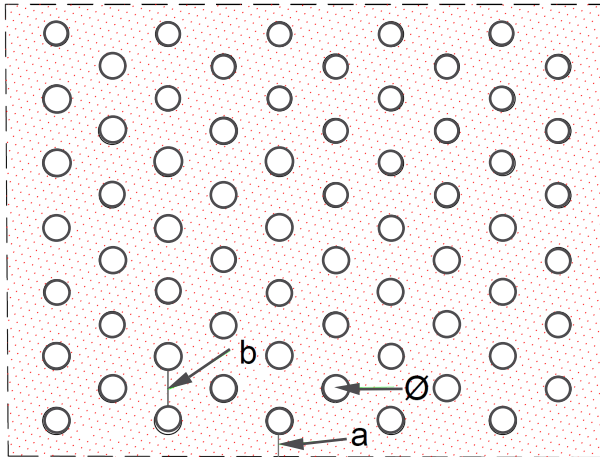
Guidelines - Exterior Applications

For exterior applications, perforations can be performed on CNC routing tables or punch machines such as Turret NCT or CNC. All holes should be separated from each other by $\geq 3/8$ inch (9.5mm) of composite material, and the open portion of the entire panel should not exceed 45%. Perforations should be a minimum distance of $\geq 1/4$ inch (6.4mm) from panel face edge. When punching the panels, a single stamp press will produce the best results and the clearance should not exceed more than 3.9mil (0.1mm). If lubricating oils are used, follow the guidelines of the 3rd party perforator and ensure protection of the painted aluminum sheet. When adding a radius to the panels, the minimum radius should be tested with mock-ups, but should be no less than 12 inches (300mm) after routing holes and 24 inches (600mm) after punching holes. Punching holes will induce stresses in the panel which may cause bowing and a slight change in overall dimension. Care should be taken to monitor and flatten any panels that exhibit bowing. Refer to diagram and chart on the following page for more details.

Guidelines - Interior Applications

For interior applications where there will be no structural or thermal stress on the panels, ALUCOBOND® PLUS panels can be perforated up to 65% of the overall panel. Holes can be separated by a minimum of $3/8$ " (9.5mm) of ALUCOBOND® PLUS material. Refer to diagram and chart on the following page for more details.

Fabrication Guidelines



Critical Dimensions for Perforation		
Panel Thickness		5/32" (4mm)
Minimum Dimensions	a	≥ 1/4" (15.875mm)
	b	≥ 3/8" (9.5mm)
	Ø	≥ 5/32" (4mm)
Maximum Exterior Perforated Rate		≤ 45%
Maximum Interior Perforated Rate		≤ 65%
Minimum Curved Radius		≥ 11-7/8" (300mm)

* If varied perforations are the preferred styling method, ensure that the spacing from perforation edge to perforation edge is ≥ 3/8 inch (9.5mm).

Limitations

Perforations in Anodized finishes should be made before the anodizing process; otherwise, any warranty will be void. Perforations are not recommended for Brushed finishes, therefore no warranty can be offered for Brushed finishes. Perforated panels are not recommended in applications where corrosive exposure is likely, i.e. within 3280 feet (1000m) of salt water bodies or industrial applications that may cause a harmful atmosphere. Perforated panels have not been tested to NFPA 285.

Disclaimer - This document does not provide exhaustive instructions for properly perforating and installing ALUCOBOND® PLUS panels. The performance of ALUCOBOND® PLUS panels in wall assemblies depends largely upon the attachment system and supporting materials used. 3A Composites USA does not provide or determine these such materials. 3A Composites USA will not be responsible or liable for results obtained or damages incurred from the use of this document.