

AYRLITE® 2068

Non-Decorative Faced, Aluminium Honeycomb Panel



AYRES
Lightweight Panel Systems
www.ayrescom.com

DATA SHEET Issue 1

Description

AYRLITE 2068 is an aluminium honeycomb panel faced with non-decorative HPL laminate.

Panels are produced with the same colour/finish laminate to both faces to ensure panel flatness.

AYRLITE 2068 is specifically designed to provide a lightweight panel substrate with high stiffness and strength, for the secondary bonding of veneers and other finishing materials.

Strain-hardened hexagonal cell aluminium honeycomb has optimum mechanical properties and is able to carry shear loads at significantly lower weight than foams or other core types.

Features

- Meets ISO 1182 for Non-Combustibility of aluminium honeycomb core.
- 6.35mm cell size, aluminium honeycomb core.
- Panels are manufactured to any thickness, from 6mm to 75mm.
- Aluminium honeycomb core meets the requirements of MIL-C-7438 salt fog anti-corrosion performance.
- Hot bonded adhesive process.
- Range of decorative finishes available.
- High stiffness and strength.
- Low weight.
- Easy to fabricate.
- Wide selection of anodised aluminium assembly extrusions available.

Applications

- Wall linings.
- Doors.

- Tables.
- Furniture.
- Partitions.
- Cabinetry.
- Internal modules eg. galleys, toilets, etc.
- Ceilings.
- Bulkheads.

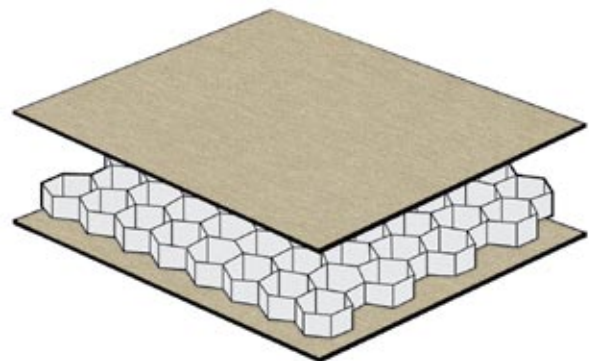
Fabrication

AYRLITE 2068 can be easily cut and drilled with standard tools, such as circular saws, routers etc. Components or complete interiors can be fabricated using Ayres Composite Panels' aluminium extrusions, cutters and polyurethane paste adhesives. Traditional tongue-and-groove (mortice and tenon) methods can also be used.

A CD is available, showing assembly techniques (contact Ayres Composite Panels for details).

Storage

NOTE: Unbalanced exposure of the panel faces to ambient moisture levels during transport and storage can induce bow in some panels; typically the top and/or bottom panel of a pack. To restore moisture balance and flatness, simply expose the concave face to the atmosphere overnight.



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Physical and Mechanical Performance

Typical room temperature properties for 1mm decorative laminate faced panels.

Thickness (mm)	Weight (Kg/m ²)	Long Beam		Flatwise Tensile (MPa)	Flatwise Compression (MPa)
		Max Load (Newtons)	Deflection at Max Load (inches)		
10	3.4	825	33	1.2	2.6
20	3.9	1924	16	1.2	2.6
30	4.5	3188	13	1.2	2.6

Mechanical test procedures to MIL-STD-401

Availability

Standard Dimensions
2400 x 1200mm
Panel Thickness
Made to order, minimum thickness 6mm

Safety

As with cutting operations on most materials, avoid inhalation and eye contact with machining dust. Wear protective equipment such as hearing protection and safety glasses during any cutting operations. Use machine guards. Wear gloves to avoid cuts. Wash hands before eating, drinking or smoking and after finishing work.

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