

AYRLITE® 2041

Plywood Faced, Aluminium Honeycomb Panel



AYRES
Lightweight Panel Systems
www.ayrescom.com

DATA SHEET

Issue 2

Description

AYRLITE 2041 is an aluminium honeycomb panel **faced with exterior grade plywood**.

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.
- Aluminium honeycomb core meets the requirements of MIL-C-7438 salt fog anti-corrosion performance.
- Exterior grade plywood face sheets (1.5mm minimum thickness). Various thicknesses of plywood are available, but the same thickness must be used on both sides of the panel to maintain flatness.
- Suitable for veneer application, painting or secondary bonding with decorative laminates.
- 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.

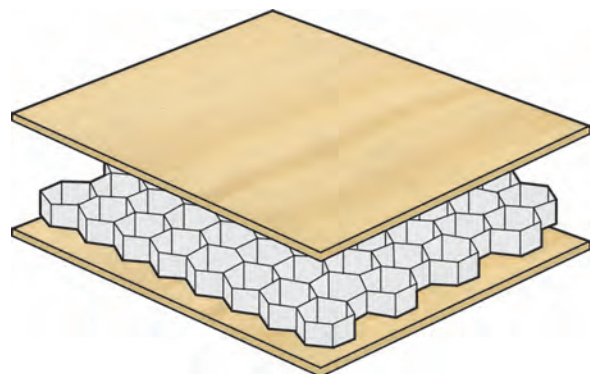
Fabrication

AYRLITE 2041 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 1.5mm plywood faced panels.

Thickness (mm)	Weight (Kg/m ²)	Long Beam		Flatwise Tensile (MPa)	Flatwise Compression (MPa)
		Max Load (N)	Deflection at Max Load (mm)		
10	3.1	720	39	1.2	2.6
20	3.6	1181	18	1.2	2.6
30	4.2	1560	14	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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Lighten Up!

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