



# AYRLITE® 2054

Decorative Faced, Aluminium Honeycomb Panel

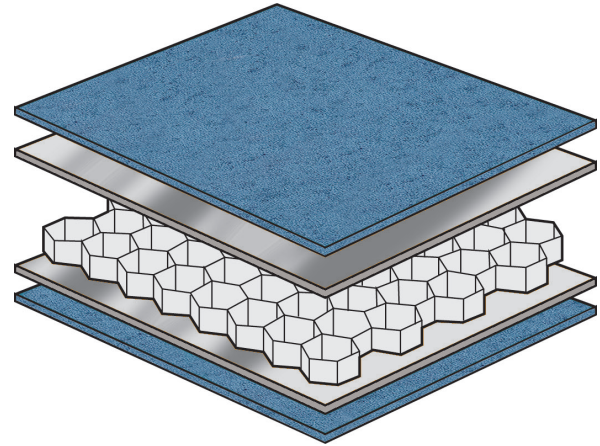
## DESCRIPTION

AYRLITE® 2054 is an aluminium honeycomb panel with decorative laminate faces reinforced with aluminium sheet.

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

Advanced adhesive technology has enabled AYRLITE® 2054 to achieve excellent fire performance.

AYRLITE® 2054 has been principally developed for high-performance marine vessel interior applications.



## ACCREDITATIONS



- Fully compliant with European Union Marine Equipment Directive (EU-MED) 96/98/EC. May be used on vessels constructed, registered or operated in Europe



- DNV Type Examination Certificate, for C-Class applications (on SOLAS and HSC vessels)



- DNV Type Approval, for C-Class applications (on SOLAS and HSC vessels)



- US Coast Guard Certificate of Approval, as an Interior Finish



- IMO MSC 61(67) Fire Test Procedures Code compliant



- Meets IMO Res.A.653(16) Surface Spread of Flame test

- Meets ISO 1182 requirements for Non- Combustibility of aluminium honeycomb core

- Meets ISO 5659-2 requirements for Smoke and Toxicity

- Aluminium honeycomb core meets the requirements of AMS-C-7438 for salt fog anti-corrosion performance

## FEATURES

- Low weight
- High stiffness
- Easy to fabricate
- Wide range of decorative options: colours, patterns, wood grains, etc.
- Panels are produced with the same decorative laminate on both faces, or with a backing/lining laminate on the reverse face
- Decorative faces are reinforced with aluminium sheet. A broad range of reinforcement sheet thicknesses are available, including 0.3mm, 0.5mm, 0.8mm and 1.0mm. 0.5mm is the standard reinforcement thickness
- Aluminium reinforcement sheets can be selected with different thicknesses on different faces: for example, 0.8mm for front face, 0.3mm for back face
- Aluminium reinforcement sheets are 5000-series alloy for maximum strength and anti-corrosion performance
- Aluminium honeycomb cell size is 6.35mm
- Wide selection of AYRES® Profiles & Assembly Accessories are available



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## PHYSICAL AND MECHANICAL PERFORMANCE

Thickness (mm)	Weight (kg/m <sup>2</sup> )	Long Beam Flex		Flatwise Tensile (MPa)	Flatwise Compression (MPa)
		Max Load (N)	Deflection at Max Load (mm)		
10	4.86	954	20	1.0	2.2
20	5.37	1875	9	1.0	2.2
30	5.97	2810	7	1.0	2.2

Typical room temperature properties for laminate faced panels, reinforced with 0.5mm aluminium sheet  
Mechanical test procedures to AMS-STD-401. Test report available on request

## AVAILABILITY

<b>Standard Dimensions</b>
2400mm x 1200mm
<b>Panel Thickness</b>
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.

## APPLICATIONS

- Wall linings
- Furniture
- C-class bulkheads
- Internal modules eg. galleys, toilets, kiosks etc.
- Cabinetry
- Partitions
- Ceilings
- Tables
- Doors

## FABRICATION

AYRLITE® 2054 can be easily cut and drilled with standard tools for laminate-faced boards, such as circular saws, routers, etc. Negative rake blades are recommended for circular saws.

Components and complete interiors can be fabricated using AYRES® Profiles & Assembly Accessories, cutters and polyurethane paste adhesives.



**Ayres Composite Panels Pty Ltd**  
 21-23 Clune Street  
 Bayswater WA 6053, Australia  
 T: +61 8 9279 3426  
 enquiries@ayrescom.com

**Ayres Composite Panels USA LLC**  
 5460 Business Parkway  
 Theodore AL 36582, USA  
 T: +1 251-653-0700  
 usa@ayrescom.com

www.ayrescom.com

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