



AYRLITE® 2053

Decorative Faced, Aluminium Honeycomb Panel

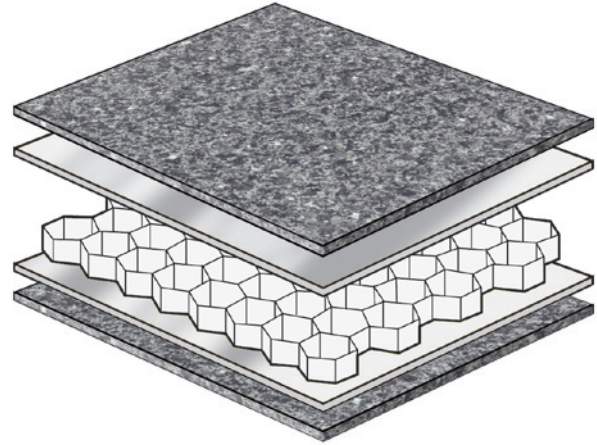
DESCRIPTION

AYRLITE® 2053 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.

Minimal content of combustible materials means a low fire load, enabling AYRLITE® 2053 to achieve flame spread test requirements.

AYRLITE® 2053 has been principally developed for high-performance marine vessel interior applications.



ACCREDITATIONS



- Meets IMO Res.A.653(16) Surface Spread of Flame test
- Meets ISO 1182 requirements for Non- Combustibility of aluminium honeycomb core
- 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 ²) | Long Beam | | 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

AVAILABILITY

| |
|--------------------------------------|
| Standard Dimensions |
| 2400mm 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.

APPLICATIONS

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

FABRICATION

AYRLITE® 2053 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.



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