

TECHNICAL DATA SHEET

PRODUCT: ALUMINIUM HONEYCOMB CORE MATERIAL

DESCRIPTION

High performance hexagonal aluminium honeycomb for use as a structural core material in composite materials for motorsport, marine, renewable energy, architectural and mass transit applications. Also used in crash attenuators, air straighteners (wind tunnels), light diffusers/directors and beds for laser cutters.

Characteristics:

- High shear strength
- High compressive strength
- Low density
- Corrosion and temperature resistant
- Very accurate thickness tolerance

USES

Aluminium honeycomb is used in a wide range of applications, including:

- Motorsport (monocoques, splitters, floors, diffusers, crash cells)
- Aviation (bulkheads, dashboards, floors)
- Marine (decks, bulkheads, dashboards)
- Renewable energy (turbine housings, blade construction)
- Architectural (panels, doors, floors)
- Mass transit
- Crash attenuation (impact cells for crash tests, crumple zones)
- Air straighteners (wind tunnels)
- Laser cutting beds

PROPERTIES

	1/8" (3.2mm)	1/4" (6.4mm)	3/4" (19.1mm)
Nominal Density (pcf)	4.5 (72.1kg/m ³)	5.2 (83.3kg/m ³)	1.8 (28.8kg/m ³)
Aluminium Series	5052	3003	3003
Foil Thickness (micron)	35	70	50
Perforated?	No	Yes	Yes
Corrosion Treated	No	Yes	Yes
Compressive Strength - Bare (psi)	539	625	115
Compressive Strength - Stabilised (psi)	559	655	125
Crush Strength (psi)	255	235	40
Plate Shear (L direction) Strength (psi)	340	360	95
Plate Shear (L direction) Modulus (ksi)	70	65	22
Plate Shear (W direction) Strength (psi)	220	210	60
Plate Shear (W direction) Modulus (ksi)	31	35	10

This data is not to be used for specifications. Values listed are for typical properties and should not be considered minimum or maximum.

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Easy Composites Ltd, Unit 39 Park Hall Business Village, Longton, Stoke on Trent. ST3 5XA
Tel. +44 (0)1782 454499 Web www.easycomposites.co.uk Email sales@easycomposites.co.uk