

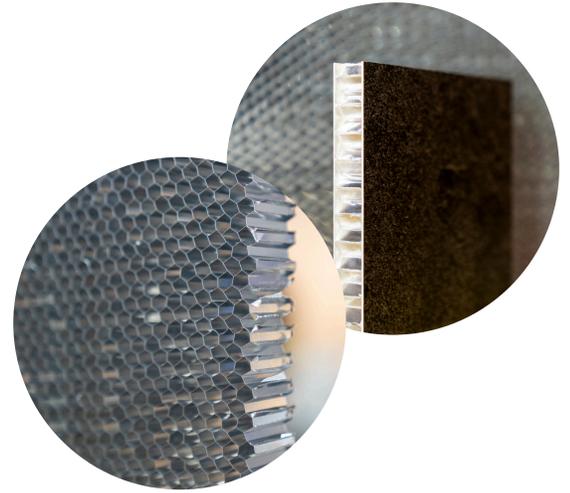
### TECHNICAL DATA SHEET

#### DESCRIPTION

High-performance hexagonal aluminum honeycomb serves as an ideal structural core material in composite materials utilized across a spectrum of industries, including motorsport, marine, renewable energy, architecture, and mass transit applications. Its versatility extends to applications such as crash attenuators, air straighteners for wind tunnels, light diffusers/directors, and beds for laser cutters.

#### FEATURES

- Lightweight
- High Strength and Rigidity
- Excellent Thermal and Acoustic Insulation
- Fire Resistance
- Corrosion Resistance
- Customizability
- Shock Absorption
- Eco-Friendly
- Low Maintenance
- Easy Fabrication
- Integration Applications



#### TYPICAL APPLICATIONS

- 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

#### STANDARD DIMENSIONS

Cell Sizes mm: 3.2, 6.4, 9.5, 12.7, 19.1

Sheet "Ribbon" (L) m: 2.0(max)

Sheet "Transverse" (W) m: 4.5(max)

Sheet Thickness (T) mm: 300(max)

Typical Panel Sizes: 1200mm x 2400mm

**Note:** Special dimensions, sizes, tolerances, CNC machining and die cut to size can be provided upon request.



RECYCLABLE



HEAT RESISTANT



HIGH STRENGTH



LIGHT WEIGHT



FIRE PROOF

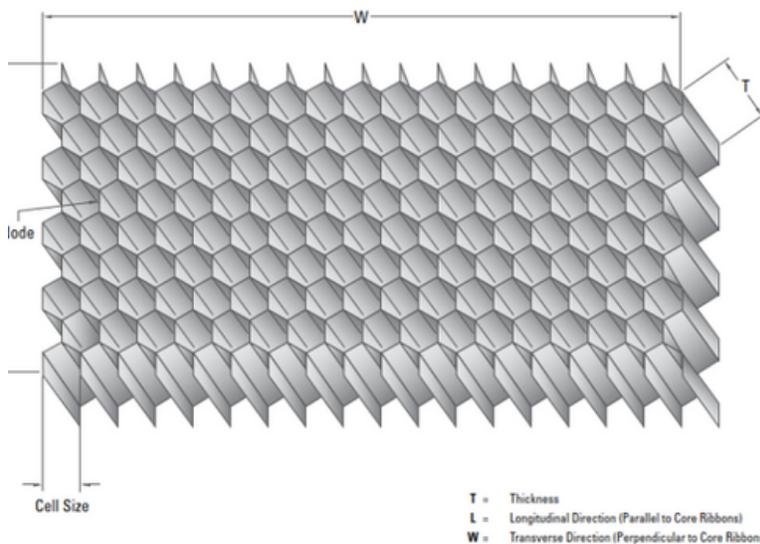


SOUND RESISTANT

### MECHANICAL PROPERTIES

#### Ecocomb Aluminum Honeycomb core

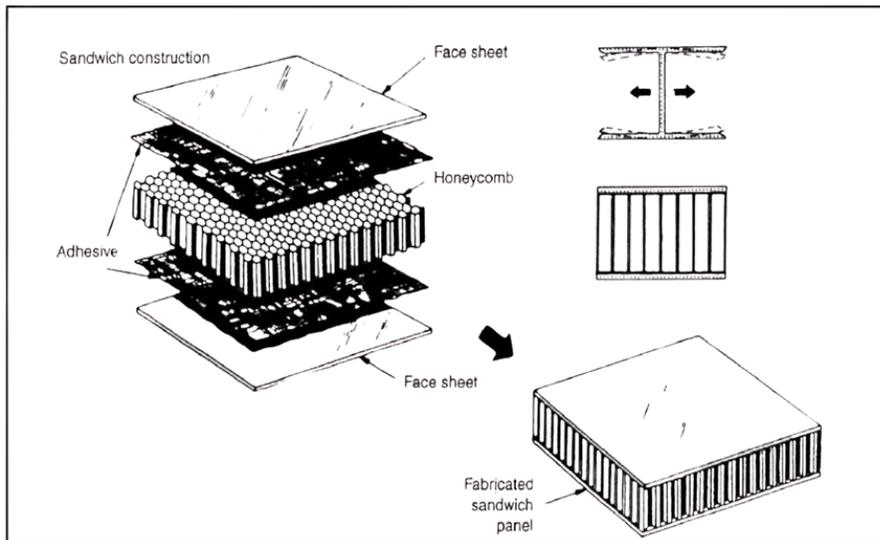
Mechanical Properties	Unit	Test method	Typical Values						
Core Cell Size	mm	By Vernier	6.4	6.4	9.5	9.5	12.5	19	19
Foil Thickness	µm	By Micrometer	50	80	50	80	50	50	80
Core Density	Kg/m <sup>3</sup>	By Weight	50	89	47	56	33	20	31
Compression Strength	N/mm <sup>2</sup>	ASTM C365	2.3	4.04	1.01	2.15	0.48	0.16	0.57
Plate shear Strength "L Dir.	N/mm <sup>2</sup>	ASTM C273	3.44	5.52	2.86	4.15	2.54	1.42	1.84
Plate Shear Strength "W" Dir.	N/mm <sup>2</sup>	ASTM C273	1.49	2.61	0.64	2.26	0.4	0.57	0.72
Service Temperature	0 C	-	-15 C up to 80 C						



### MECHANICAL PROPERTIES

### Ecocomb Aluminum Honeycomb Panel

Mechanical Properties	Unit	Typical Values							
Core Cell Size	mm	6.4							
Foil Thickness	µm	50		50		80		80	
Skin Thickness	mm	0.5		1		0.5		1	
Panel Thickness	mm	10	20	10	20	10	20	10	20
Drum Peel Strength	Nmm/mm	88	85	95.23	90.39	100.58	106.39	110	120
Compression Strength	N/mm2	2.38	2.34	2.4	2.2	3.5	3.33	4.4	4.16
Core Cell Size	mm	9.5							
Foil Thickness	µm	50		50		80		80	
Skin Thickness	mm	0.5		1		0.5		1	
Panel Thickness	mm	10	20	10	20	10	20	10	20
Drum Peel Strength	Nmm/mm	75.34	85.02	84	88	76.42	76.93	88	92.35
Compression Strength	N/mm2	1.27	1.15	1.28	1.13	2.68	2.54	2.8	2.7
Core Cell Size	mm	12.5							
Foil Thickness	µm	50		50		80		80	
Skin Thickness	mm	0.5		1		0.5		1	
Panel Thickness	mm	10	20	10	20	10	20	10	20
Drum Peel Strength	Nmm/mm	44.72	41.36	66	69.93	50.67	47.12	69.42	77.82
Compression Strength	N/mm2	0.7	0.58	0.71	0.61	1.6	1.4	1.7	2.71.40



### CERTIFICATIONS

Marine- IMO - SOLAS Certified Type  
Approval as per IMO FTP fire rating  
as per B15 and C type



Railway- EN 45545- HL3 by polish  
Railway institute



Construction- ASTM - E 84



TUV India ISO 9001:2015



Acoustically Tested & Verified by  
ARAI as per ASTM E 413- NABL  
Accredited (CSIR Laboratory)

