



# Aluminum Honeycomb

## FEATURES



**Lightweight:** Aluminum honeycomb panels are incredibly lightweight, making them easy to handle, transport, and install. This feature reduces structural load while providing strength and durability.



**High strength-to-weight ratio:** Despite its lightweight nature, aluminum honeycomb panels possess a remarkable strength-to-weight ratio. They offer exceptional structural integrity and can withstand various external forces, including wind, impact, and vibration.



**Rigidity and stability:** The honeycomb structure provides inherent rigidity and stability to the panels, making them resistant to deformation. This ensures that the building's exterior remains strong and intact, even in demanding conditions.



**Fire resistance:** Aluminum is inherently fire-resistant, and honeycomb panels often come with additional fire-retardant coatings or treatments. This enhances the fire resistance of the panels, making them a safe choice for building exteriors.



**Weather and corrosion resistance:** Aluminum is highly resistant to weather elements and corrosion, ensuring long-lasting performance and minimal maintenance requirements. This feature is particularly advantageous for buildings exposed to harsh environmental conditions.

## MECHANICAL INFORMATION - PANEL

	SIZE: 3/4in		SIZE: 1in		SIZE: 2in	
	Imperial	Metric	Imperial	Metric	Imperial	Metric
Total Thickness	3/4in	19.0mm	1in	25.4mm	2in	50.8mm
Skin Thickness	0.03in	1mm	0.03in	1mm	0.03in	1mm
Weight	0.93lb/ft <sup>2</sup>	4.52kg/m <sup>2</sup>	0.96 lb/ft <sup>2</sup>	4.67kg/m <sup>2</sup>	1.08 lb/ft <sup>2</sup>	5.28kg/m <sup>2</sup>
Flexural Rigidity	50 10 <sup>9</sup> psi	0.35 10 <sup>9</sup> N mm <sup>2</sup>	182(10 <sup>9</sup> psi)	1.26(10 <sup>9</sup> N mm <sup>2</sup> )	1,450(10 <sup>9</sup> psi)	10.08(10 <sup>9</sup> N mm <sup>2</sup> )
Shear Rigidity	332 10 <sup>9</sup> psi	2.29 10 <sup>9</sup> N mm <sup>2</sup>	332(10 <sup>9</sup> psi)	2.29(10 <sup>9</sup> N mm <sup>2</sup> )	332(10 <sup>9</sup> psi)	2.29(10 <sup>9</sup> N mm <sup>2</sup> )
Tensile Strength	117 psi	0.80 MPa	196 psi	1.35 MPa	392 psi	2.70 MPa
Compressive Strength	9,398 psi	64.8 MPa	15,664 psi	108 MPa	31,328 psi	216 MPa
Compressive Elastic Modulus	61 psi	0.42 MPa	101 psi	0.7 MPa	203 psi	1.4 MPa
Shear Strength	744 psi	5.13 MPa	1,232 psi	8.5 MPa	2,465 psi	17 MPa

## MECHANICAL INFORMATION - SKIN

	Imperial	Metric
Thickness	0.02 - 0.04in	0.5 - 1mm
Yield Strength (R <sub>p,0.2</sub> )	>11,603 psi	>80 N/mm <sup>2</sup>
Ultimate Tensile Strength (R <sub>m</sub> )	18,129<R <sub>m</sub> <26,831psi	125<R <sub>m</sub> <185N/mm <sup>2</sup>
Elongation (A)	>3%	
Alloy Type	5005	

## MECHANICAL INFORMATION - CORE

	Imperial	Metric
Cell Size	1/4in	6.35mm
Foil Thickness	0.002in	0.05mm
Density	3.49lb/ft <sup>3</sup>	56kg/m <sup>3</sup>
Compressive Strength	319 psi	2.2 MPa
Alloy Type	3005	

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