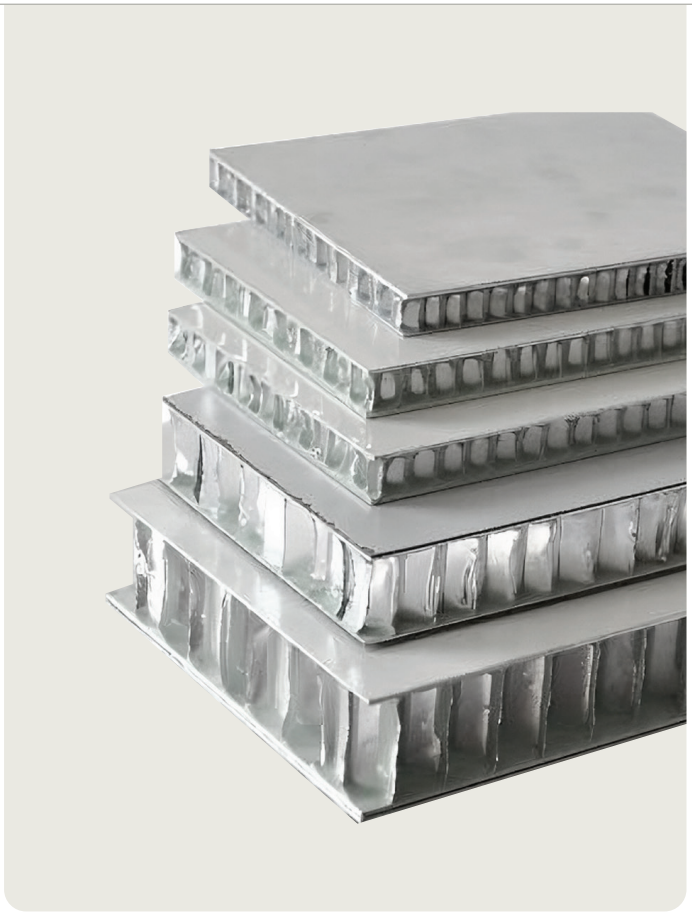
Aluminum Honeycomb



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 remark-ablestrength-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 1 in		Size 2 in	
	Imperial	Metric	Imperial	Metric
Total Thickness	1 in	25.4 mm	2 in	50.8 mm
Skin Thickness	0.03 in	1 mm	0.03 in	1 mm
Weight	0.96 lb/ft²	4.67 kg/m²	1.08 lb/ft²	5.28 kg/m²
Flexural Rigidity	182 10^9psi	1.26 10^9N mm²	1,450 10^9psi	10.08 10^9N mm²
Shear Rigidity	332 10^9psi	2.29 10^9N mm²	332 10^9psi	2.29 10^9N mm²
Tensile Strength	196 psi	1.35 MPa	392 psi	2.70 MPa
Compressive Strength	15,664 psi	108 MPa	31,328 psi	216 MPa
Compressive Elastic Modulus	101 psi	0.7 MPa	203 psi	1.4 MPa
Shear Strength	1,232 psi	8.5 MPa	2,465 psi	17 MPa

Mechanical Information
Skin

	Imperial	Metric
Thickness	0.02 - 0.04 in	0.5 - 1 mm
Yield Strength ($R_{p,0.2}$)	>11,603 psi	>80 N/mm²
Ultimate Tensile Strength (R_m)	18,129<R_m <26,831 psi	125<R_m <185 N/mm²
Elongation (A)	>3%	
Alloy Type	5005	

Mechanical Information
Core

	Imperial	Metric
Cell Side	1/4 in	6.35mm
Foil Thickness	0.002 in	0.05mm
Density	3.49 lb/ft³	56 kg/m³
Compressive Strength	319 psi	2.2 MPa
Alloy Type	3005	

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