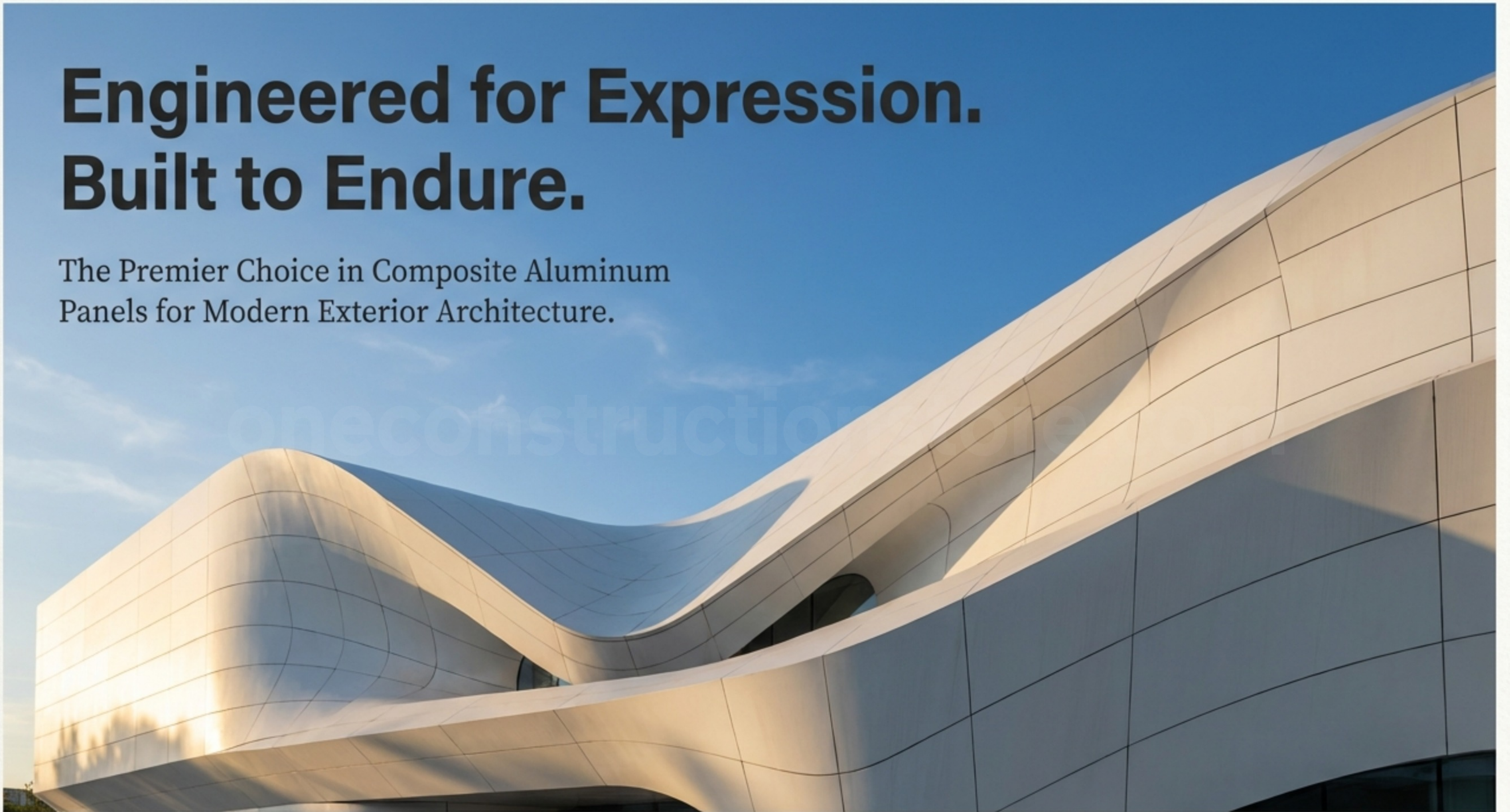


Engineered for Expression. Built to Endure.

The Premier Choice in Composite Aluminum
Panels for Modern Exterior Architecture.

oneconstruction



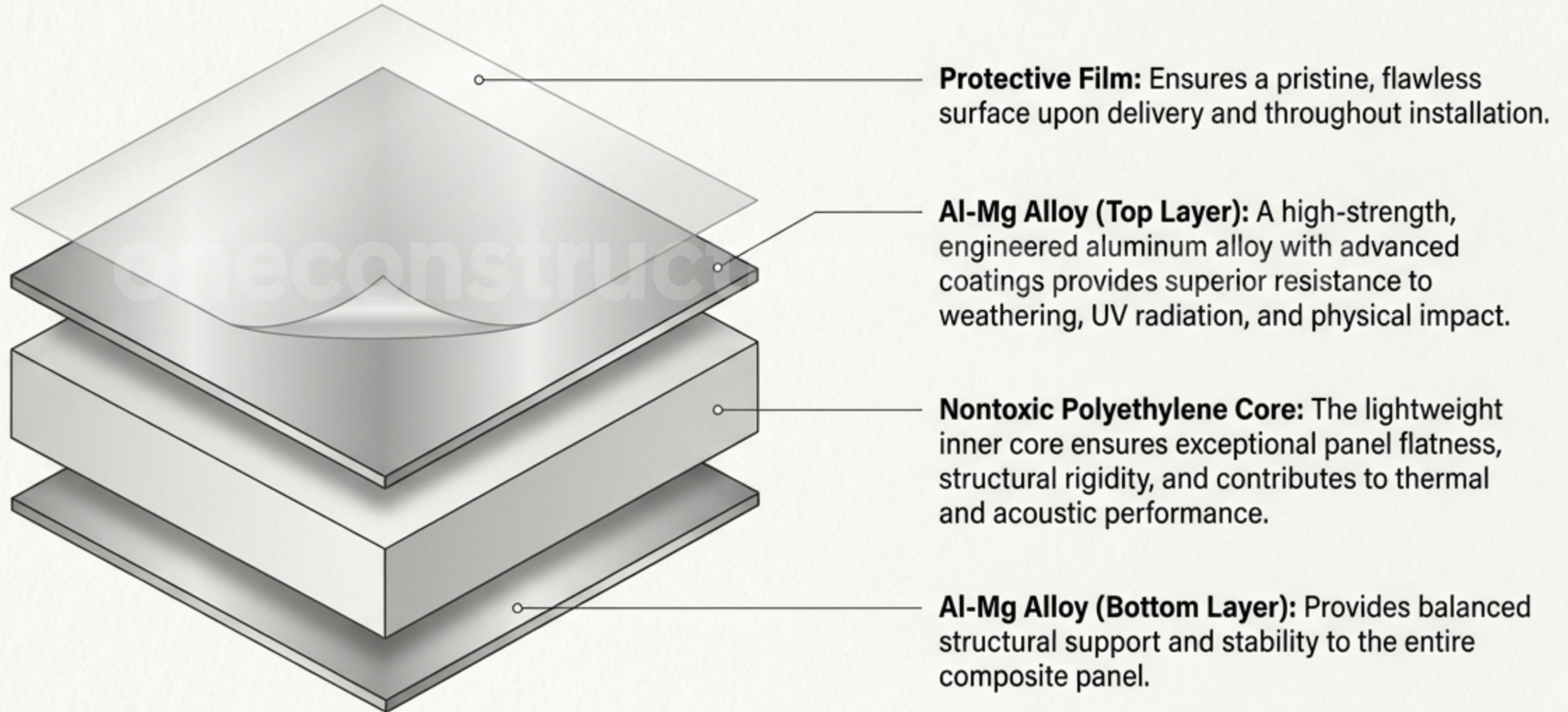
A Modern Solution for Demanding Architectural Exteriors

Composite Aluminum Panels (BOND type) are a high-performance solution manufactured from aluminum alloy sheets specifically engineered for exterior use. They deliver a balanced combination of long-term durability, structural stability, advanced insulation, and refined aesthetics.

An ideal material for projects that demand lasting performance, minimal maintenance, and a consistent, modern appearance over time.



The Anatomy of Performance

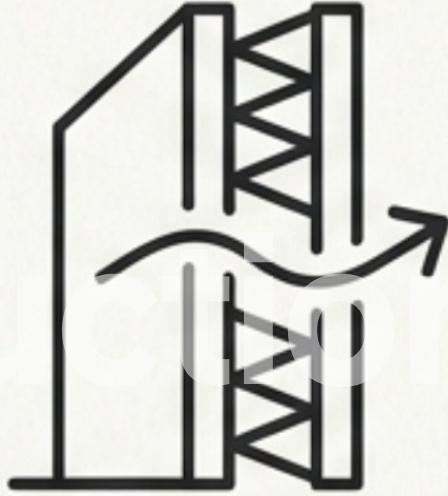


The Three Pillars of Value: A Foundation for Excellence



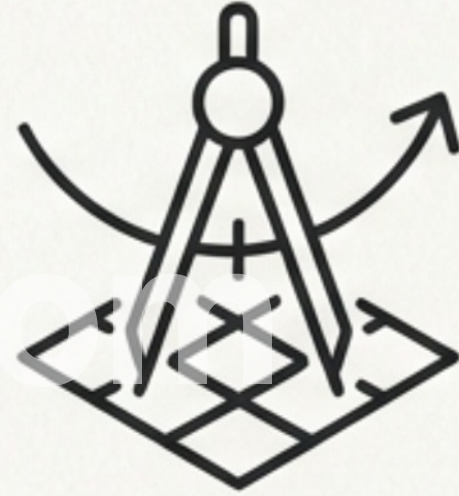
Unyielding Durability

Engineered for superior resistance to environmental stress, ensuring performance in the most demanding climates.



Integrated Performance

Combining structural strength, thermal efficiency, and acoustic insulation in a single, advanced system.



Limitless Design

Offering complete creative freedom with extensive customization in color, finish, and form.



Pillar 1: Unyielding Durability in Any Environment

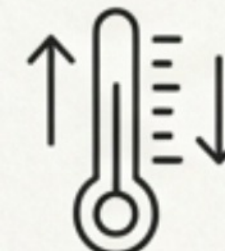
Designed to maintain its integrity and appearance over decades of exposure, ensuring a long service life with minimal maintenance.



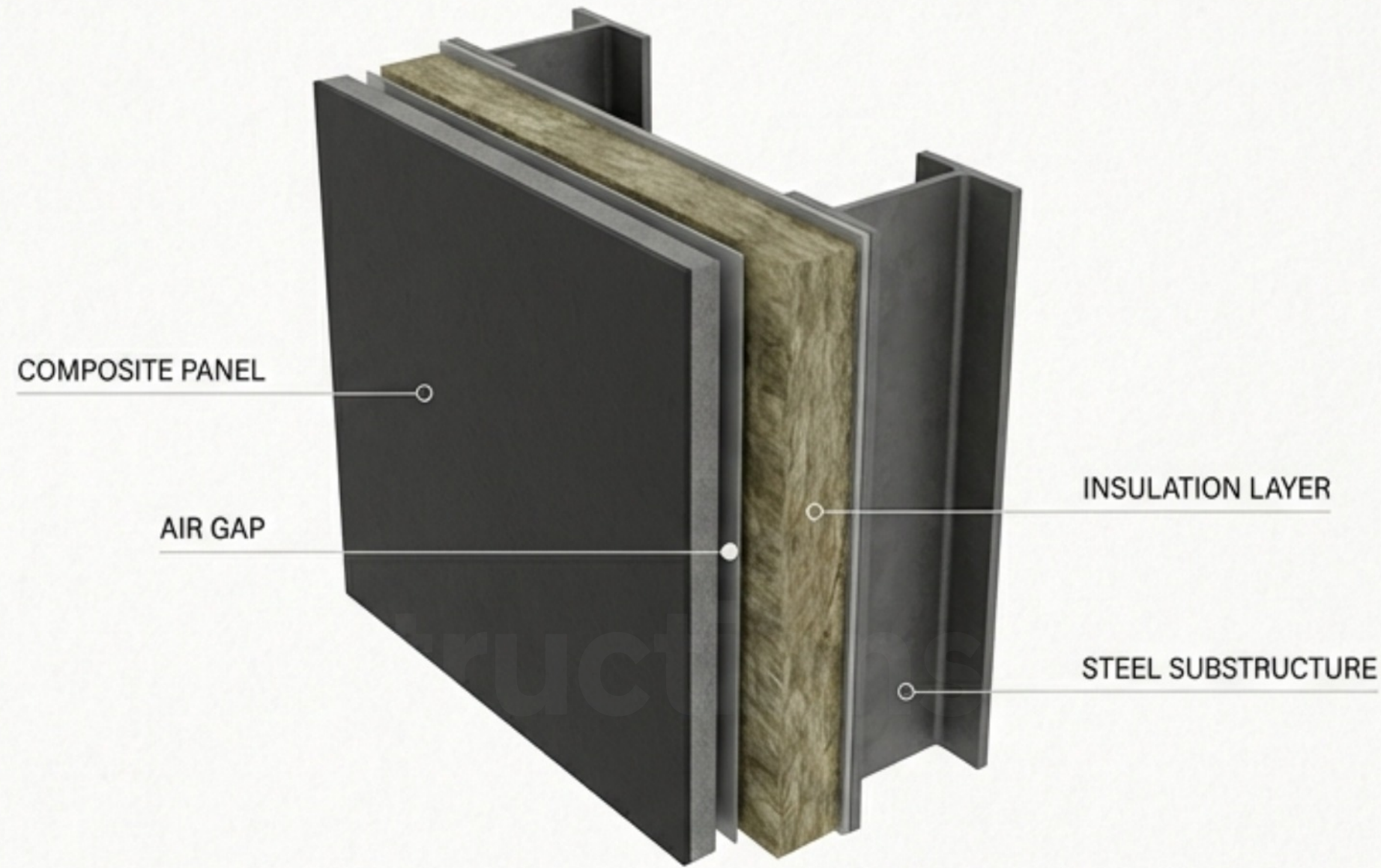
UV & Sunlight Degradation:
Advanced coatings protect against fading and material breakdown from direct sunlight.



Moisture & Corrosion: The aluminum alloy construction provides excellent protection against rain, snow, humidity, and corrosion, ideal for coastal areas.



Temperature Stability: Performs consistently through extreme heat and cold cycles without deformation.



Pillar 2: Integrated Structural and Environmental Performance

A complete system approach that enhances building reliability, energy efficiency, and interior comfort.



Structural Strength:

Systems are supported by reinforced steel substructures, offering high load-bearing capacity and resistance to deformation.



Thermal Efficiency:

Integrated insulation materials reduce energy loss, contributing to a more efficient building envelope.



Acoustic Attenuation:

The composite core and insulation help reduce external noise penetration, improving indoor comfort.

Pillar 3: Limitless Design Flexibility

Achieve your precise architectural vision with panels that are fully customizable to your project's unique requirements.

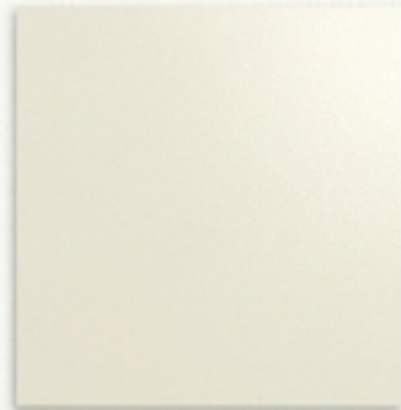
- **Form:** Flat or decorative panel designs.
- **Integration:** Seamlessly incorporate safety glass elements (laminated or tempered).
- **Color:** A wide range of standard and custom colors.
- **Finish:** Modern matte, high-gloss, and metallic surfaces.
- **Texture:** Sophisticated wood-effect textures for a natural aesthetic.



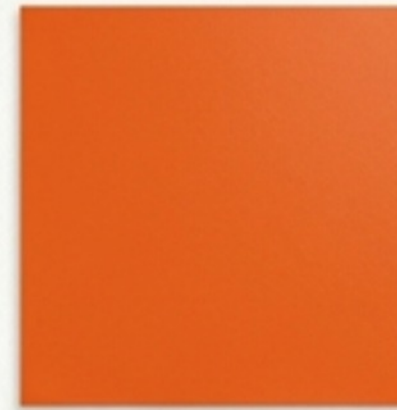
A Palette to Inspire



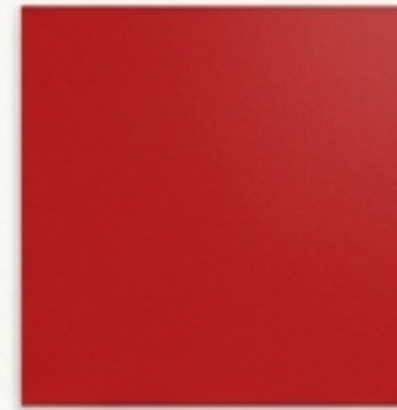
EB1003 signal yellow



EB1013 pearl white



EB2010 signal orange



EB3001 signal red



EB5002 ultramarine blue



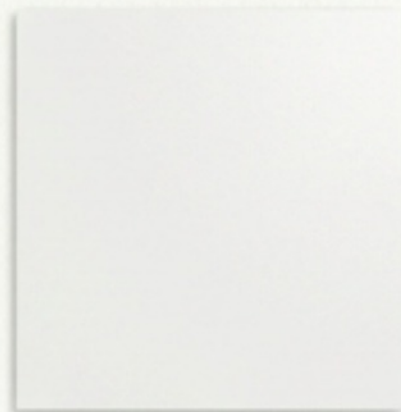
EB7005 mouse grey



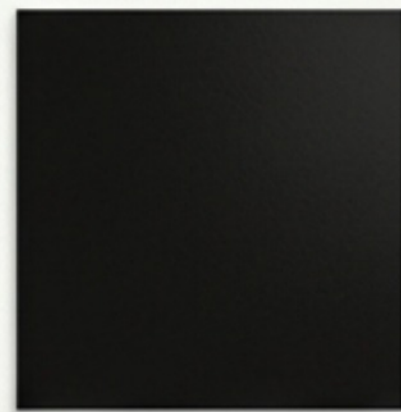
EB7016 anthracite gray



EB7024 graphite grace



EB9003 signal white



EB9005 deep black



EB9006 white aluminium



EB9007 gray aluminium

Standard palette shown. Custom colors, wood-effect, and other textures available to match any design specification.

Future-Ready: Integration & Applications

Modern Systems Compatibility

Our panel systems can be adapted to seamlessly support:

- * Smart access solutions (fingerprint and digital entry)
- * Remote-controlled locking mechanisms
- * Alarm-integrated security components
- * Building automation and smart home systems



Proven Across Diverse Sectors

- * Residential exterior structures
- * High-end architectural projects
- * Coastal and high-humidity environments
- * Commercial and private installations



Technical Specifications: General Properties

Trait	Standard	Unit	Value
Panel Thickness	-	mm	4
Mass	ASTM D792-00	Kg/m ²	5.5
Thermal Conductivity	ASTM C518	Kcal/m.hr.°C	0.102
Temperature Turning	ASTM D648-95	°C	115
Linear Expansion	ASTM D696	10 ⁻⁶ /°C	24
Tight Strength	ASTM D638	Kg/mm ²	8.5
Flexibility	ASTM D790	Kg/mm ²	11.2
Elastic Deformation	ASTM D790	Kg/mm ²	3746
Sound Isolation	500 Hz	dB	30

Note: All data presented for standard 4mm panel configuration.

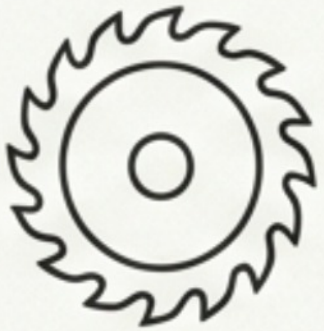
Technical Specifications:

Environmental & Chemical Resistance

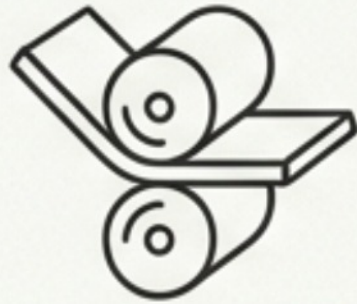
Resistance Test	Standard	Conditions	Result
Impact Resistance	ASTM D2794	-	No Damage
Abrasion Resistance	ASTM D968	-	44 L/mil
Acid Resistance	ASTM D1308	37% HCL, 15 mins	No Damage
Base Resistance	ASTM D1308	25% NaOH, 30 mins	No Damage
Salt/Water Resistance	ASTM B117	5% Salt, 3000 hrs	No Damage
Moisture Resistance	ASTM D2247	100% RH, 3000 hrs	No Damage
Detergent Resistance	ASTM D2248	-	No Damage

Guidelines for Processing & Fabrication

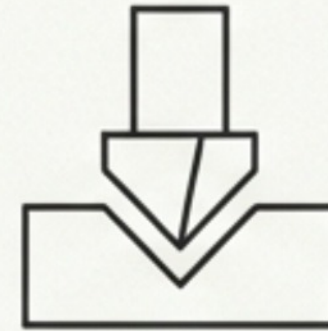
The panels are designed for straightforward fabrication using standard workshop equipment.



Cutting: Can be cut with carbide-toothed saws or by shearing.



Bending & Rolling: Formable using 3 or 4-roll machines with a minimum interior radius of $r=15 \times$ panel thickness.



Grooving: Easily shaped by creating V-grooves for clean bends up to 135°.

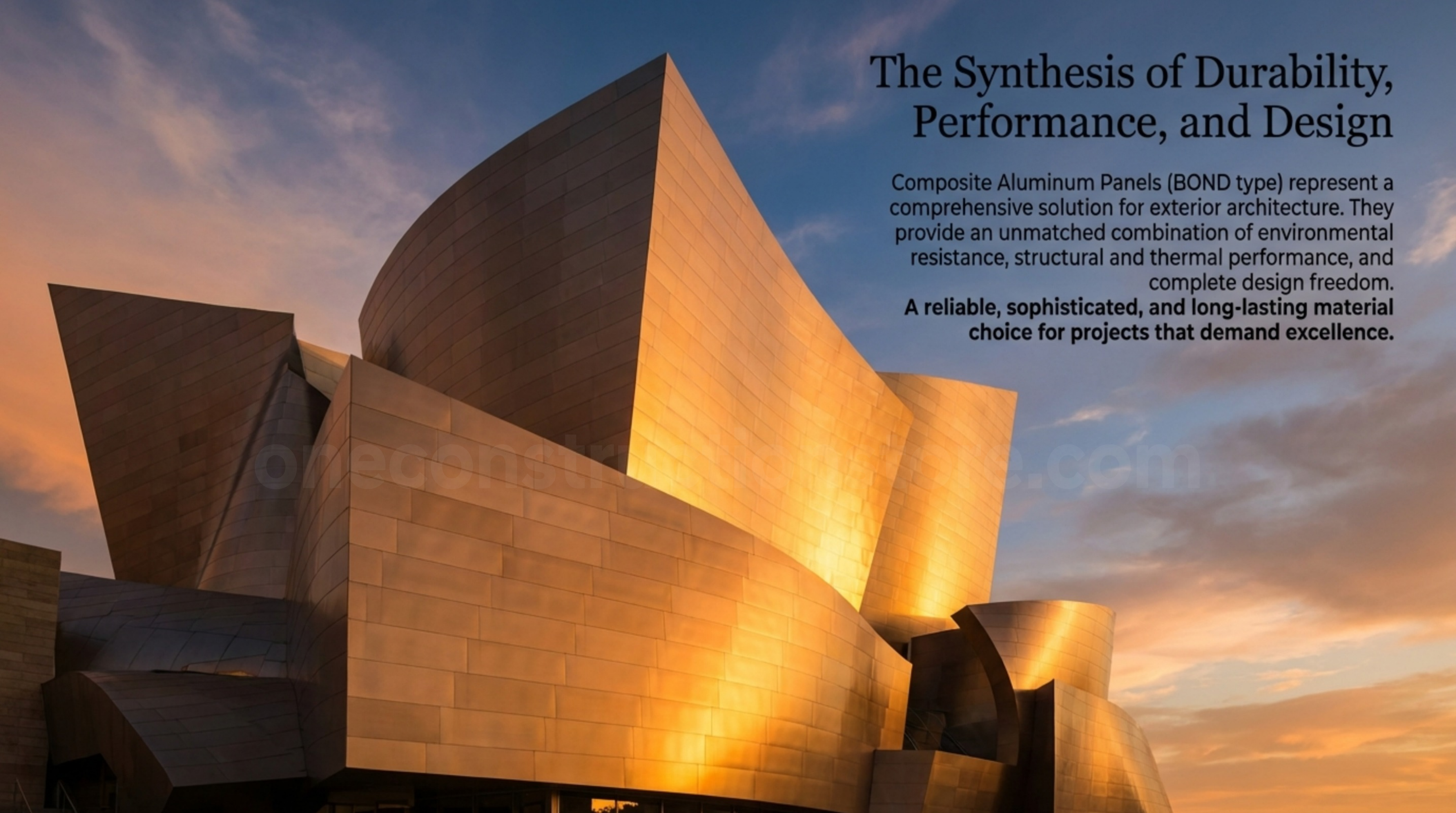


Drilling: Drilled with standard bits suitable for aluminum.



Fastening: Can be screwed, riveted, or bonded with appropriate adhesives and sealants. Use oversized holes for thermal dilation in exterior applications.

Note: Always follow detailed fabrication manuals for precise tool settings and safety procedures. Do not remove protective foil until processing is complete.



The Synthesis of Durability, Performance, and Design

Composite Aluminum Panels (BOND type) represent a comprehensive solution for exterior architecture. They provide an unmatched combination of environmental resistance, structural and thermal performance, and complete design freedom.

A reliable, sophisticated, and long-lasting material choice for projects that demand excellence.

oneconstruct.com