

Product Data Sheet

PRODUCT NAME:

Envelope 2000®
Metal Composite Material (MCM)

MANUFACTURER:

Citadel Architectural Products, LLC.
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OVERVIEW:

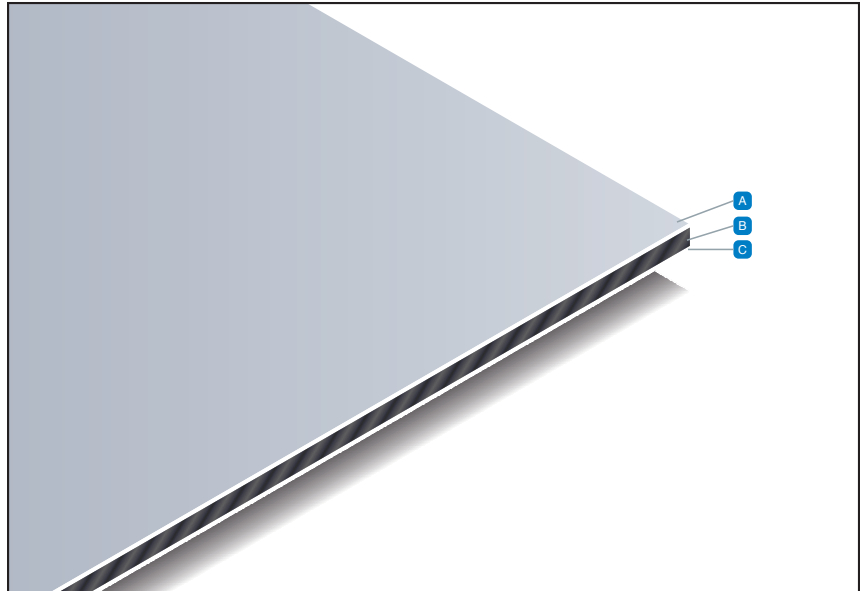
Envelope 2000® is a composite panel made by laminating a prefinished aluminum skin to a substrate of thermoset phenolic resin. A second aluminum skin is added as a backer and provides thermal stability and panel balance.

Panels are furnished with a strippable film on the painted surfaces to protect the finish during shipment and installation.

BASIC USES & APPLICATIONS:

Envelope 2000® is designed for use as an exterior cladding on walls, canopies, fascia, and accent bands.

Envelope 2000® is typically used on medium to high rise buildings, such as office towers, retail complexes, educational buildings, medical facilities, etc...


TABLE 1. COMPOSITION & MATERIALS¹:

Component	Standard (in)	Metric (mm)
A. Prefinished Smooth Aluminum Face	.024" (min)	.609mm
B. Thermoset Phenolic Resin Core ²	.105"	2.67mm
C. Primed Smooth Aluminum Backer	.010"	.254mm

¹ Technical Properties (see back) are based upon the Typical Composition. Selecting optional components may alter these properties.

² 4mm is the most common thickness for Envelope 2000®. 3mm and 6mm (nominal) are also available.

FEATURES & BENEFITS:

Envelope 2000® offers a number of benefits to the building owner, architect, and installer including:

- **High-Tech Appearance**
Smooth aluminum skins and clean lines make Envelope 2000® an excellent choice for high profile projects where a progressive aesthetic detail is desired.
- **Fire, Water & Impact Resistant**
The phenolic core is fire resistant to meet (or exceed) code requirements and offers extra protection against incidental moisture, dents, and dings.
- **Curveable**
Along with various shadow lines, Envelope 2000® can also add interest to your project with long sweeping curves or tight, crisp column covers.
- **Cut-To-Size**
These panels can be easily cut to the correct dimension on site using standard tools.
- **Thermal Stability**
Unlike other cladding solutions, Envelope 2000® remain rigid and stable even during seasonal heating and cooling thermal cycles.
- **Tested**
Designed for performance, tested by ASTM E84, ASTM D1781, ASTM D1929, and ASTM D5420.
- **Low Maintenance**
Most foreign matter can be cleaned from surface with mild detergents; can be incorporated into yearly building washing schedule.
- **Quick Lead Time**
Available nationwide, these panels can be found locally or shipped within 2 weeks.

GENERAL LIMITATIONS:

Envelope 2000® is intended for use as an exterior cladding. It is not eligible for use as a structural element of a wall assembly. Envelope 2000® should not be used in applications where the slope exceeds 25° from vertical.

FINISHES:

Envelope 2000® comes standard with a smooth aluminum skin. Standard and metallic colors are furnished with a durable Kynar 500® coating. Anodized finishes are available as a standard finish. Custom colors are also available to match customer's standard.

Standard Smooth:

Coil Coated
Kynar 500®

Custom Smooth:

Spray Applied
Kynar 500®

SIZES AVAILABLE:

48" x 96" (1219mm x 2438mm)
48" x 120" (1219mm x 3048mm)
48" x 144" (1219mm x 3658mm)
60" x 96" (1524mm x 2438mm)
60" x 120" (1524mm x 3048mm)
60" x 144" (1524mm x 3658mm)

Cut-to-size panels are also available in virtually any size up to 60" x 144".

MATERIAL TOLERANCES:

Thickness: $\pm 1/32"$ ($\pm 0.79\text{mm}$)
Length Dim: +0, -1/16" (+0, -1.59mm)
Width Dim: +0, -1/16" (+0, -1.59mm)
Squareness: 1/64" (0.4mm) per lineal foot

STANDARD WARRANTY:

Panel Warranty: 5 Years
Anodized Finish: 20 Years
Kynar 500® Finish: 20 Years (spray-applied)
Kynar 500® Finish: 30 Years (coil-coated)

TABLE 2. PANEL WEIGHT & THICKNESS:

Component	Standard	Metric
Panel Weight ¹ Nominal Thickness ²	1.25 lbs/ft ² 1/8"	6.47 kg/m ² 4mm

¹ Weight and testing based upon panels using an .024" smooth face skin and an .010" smooth back skin.

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TABLE 3. PANEL PERFORMANCE:

Property	Test	Value	Unit
Flame Spread	ASTM E84	Class A	---
Peel Strength	ASTM D1781	34.5	in-lb/in
Ignition Temperature	ASTM D1929	900	°F
Impact Resistance	ASTM D5420	on request	

