

Product Data Sheet

PRODUCT NAME:

Envelope 2000®
Metal Composite Material (MCM)

MANUFACTURER:

Citadel Architectural Products
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OVERVIEW:

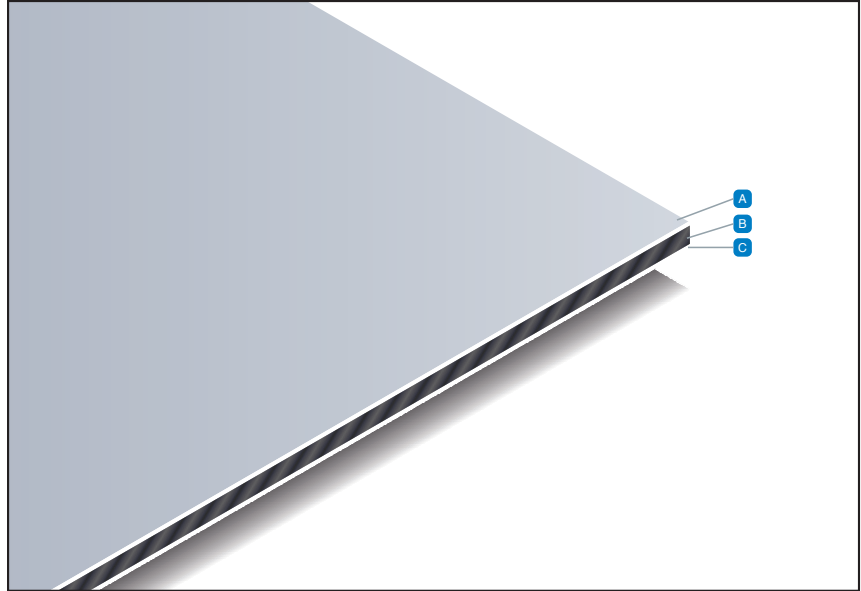
Envelope 2000 is a composite panel made by laminating a prefinished aluminum skin to a substrate of thermoset phenolic resin. A second aluminum skin is added as a backer and provides thermal stability and panel balance.

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.

Curvable

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: ±1/32" (±0.79mm)
- 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: 10 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	1.25 lbs/ft ²	6.47 kg/m ²
Nominal Thickness ²	1/8"	4mm

¹ Weight and testing based upon panels using an .024" smooth face skin and an .010" smooth back skin.
² 4mm is the most common thickness for Envelope 2000. 3mm and 6mm (nominal) are also available.

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	

