

ELEMENT

ARCHITECTURAL PRODUCTS



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FEATURING:

- RV (Reveal) Attachment System
- D-RV (Deep Reveal) Attachment System

Envelope2000[®]
Metal Composite Material (MCM)





FABRICATED LOOKS WITHOUT THE FABRICATED COSTS.

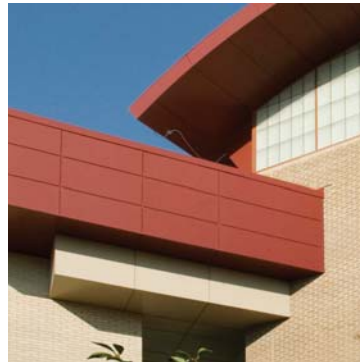
■ As field-assembled cladding systems, the *RV (Reveal)* and *D-RV (Deep Reveal)* attachment methods offer all the benefits that come with the *Envelope 2000®* metal composite material (MCM) in a time-saving and labor-saving alternative for installation.



Features & Benefits of Envelope 2000® and the RV and D-RV attachment systems



■ **Superior Flatness:**
Due to an innovative phenolic resin core, *Envelope 2000*® provides a clean, flat and unified appearance.



■ **Efficient Installation:**
Because the *RV* and *D-RV attachment systems* are field-assembled, panels and extrusions can be on site much quicker than shop-fabricated systems resulting in significant time and labor savings.



■ **Unique Design Options:**
With both the *RV* and *D-RV attachment systems*, designers can create a unique texture and feel for projects by varying the grid size or utilizing multiple colors.



■ **Curvable Systems:**
The *Envelope 2000*® panel as well as the *RV* and *D-RV* extrusions can be field curved to a gentle radius. Panels and extrusions may also be factory curved when a tighter radius is required (such as column covers).



■ **Variable Width Joints:**
With the versatile *D-RV attachment system*, you can vary the joint size (both horizontal and vertical) to match up with storefront extrusions, brick lines, or just create special accents.



■ **Wide Color Palette:**
A large selection of standard and premium colors are available for *Envelope 2000*® panels and extrusions. Plus, virtually any color can be matched to custom specifications.

Colors & Finishes

■ **Kynar 500® Solid Tones:**
Over 20 standard/premium colors to choose from in an industry benchmark finish with a 30-year warranty.

■ **Kynar 500® Metallics:**
6 standard metallic and mica colors for an additional visual interest.

■ **Anodized Finishes:**
5 true integral anodized aluminum finishes that carry a 20-year standard warranty.

■ **Custom Colors:**
Available to match customer specifications, no minimum order required.





RV: REVEAL PROFILES*



D-RV: COLORED ACCENT STRIP



D-RV: 'TILE EFFECT'

Reveal (RV) Molding System

DESCRIPTION

The *Envelope 2000® Reveal (RV) System* has been designed to provide a high-end aesthetic, yet install in a more time and budget-friendly manner than alternative shop-fabricated methods.

ATTRIBUTES

- **System Type:**
Field-Assembled, Non-Structural, Barrier Wall (*all joints completely sealed*), Progressive Sequence Installation
- **System Depth:**
3/8" from face of substrate to face of panel
7/16" from face of substrate to face of molding
- **Testing:**
ASTM E283: *Static Air Infiltration*
ASTM E330: *Structural Design Load*
ASTM E331: *Static Water Infiltration*
- **Lead Time:** 10 Working Days

Deep Reveal (D-RV) Molding System

DESCRIPTION

As an extension of the *RV system*, the *D-RV (rainscreen principle) system* offers a deeper profile to simulate the look of a fabricated system with even greater detail. Plus, it adds a number of optional methods for installation to create a truly unique effect.

ATTRIBUTES

- **System Type:**
Field-Assembled, Non-Structural, Rainscreen/Cavity Wall (*panels are sealed in place, accent strips 'free float', moldings weeped*), Progressive Sequence Installation
- **System Depth:**
1-1/4" from face of substrate to face of panel
1-5/16" from face of substrate to face of molding
- **Testing:**
ASTM E283: *Static Air Infiltration*
ASTM E330: *Structural Design Load*
ASTM E331: *Static Water Infiltration*
- **Lead Time:** 10 Working Days

SUBSTRATE REQUIREMENTS

- **Acceptable Types:**
Nailable Substrate (recommended)
 - *plywood, OSB, furring strips over masonry*
 - *system fastens directly to substrate*
 Non-Nailable Substrate
 - *exterior gypsum, DensGlas™*
 - *system must fasten through substrate to studs*

- **Moisture Barrier:**
If moisture barrier is present (recommended for *RV system*, required for *D-RV system*), metal strapping must be placed over barrier and secured to stud/substrate with adhesive in the field of the panel applied to strapping.

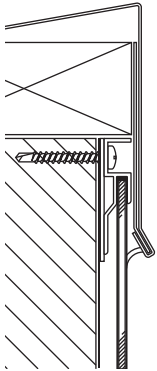
- **Flatness:**
no more than 1/4" deviation in 20ft

* Batten profiles also available, shown on reverse page.

Reveal (RV) Molding System

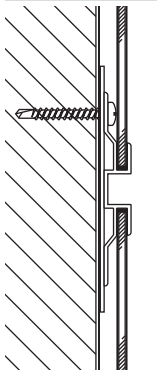
TYPICAL SECTION

PARAPET DETAIL



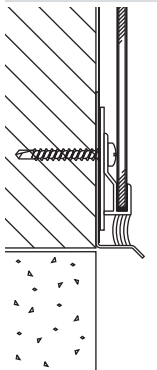
- **Molding Used:**
 - CRAX-2 Perimeter J (with 1/2" reveal)
- **Other Options:**
 - CRAX-3 Perimeter J

HORIZONTAL DETAIL



- **Molding Used:**
 - CRAX-1 Horz/Vert (with 1/2" reveal)
- **Other Options:**
 - CRAX-6 Horz/Vert (with 3" reveal)
 - CRAX-7 Horz/Vert

BASE DETAIL



- **Molding Used:**
 - CRAX-3 Perimeter J
- **Other Options:**
 - CRAX-2 Perimeter J (with 1/2" reveal)

SYSTEM EXTRUSIONS



CR-AX1
Horz/Vert



CR-AX2
Perimeter J



CR-AX4
I/S Corner



CR-AX7
Horz/Vert



CR-AX3
Perimeter J



CR-AX5
O/S Corner



CR-AX8
Adjustable O/S

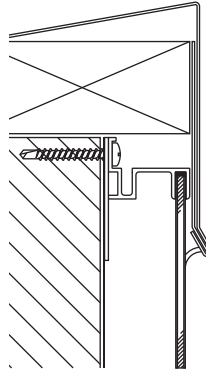


CR-AX9
Adjustable I/S

Deep Reveal (D-RV) Molding System

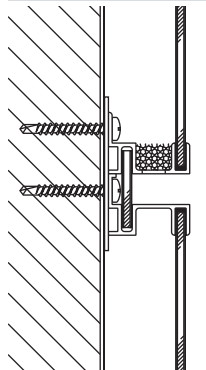
TYPICAL SECTION

PARAPET DETAIL



- **Molding Used:**
 - CRAX-11 Extrusion

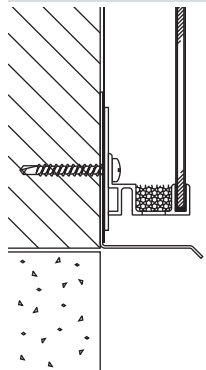
HORIZONTAL DETAIL



- **Moldings Used:**
 - CRAX-10 Extrusion (with weep holes and baffle)
 - CRAX-11 Extrusion

*Joint is variable width up to 12".
Panel accent strips are free floating.*

BASE DETAIL



- **Molding Used:**
 - CRAX-10 Extrusion (with weep holes and baffle)

SYSTEM EXTRUSIONS



CR-AX10
Extrusion



CR-AX11
Extrusion

Due to the special design of the D-RV extrusions, they can be used along with the RV extrusions to create different looks.

Envelope2000®

Metal Composite Material (MCM)



PRODUCT DESCRIPTION:

Envelope 2000® metal composite material (MCM) is comprised of two sheets of aluminum bonded to a core of thermoset phenolic resin. Panels are supplied with a removable plastic film to protect the finish during transport and installation.

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 any increment up to 60" x 144".

STANDARD WARRANTY:

Panel Performance: 5 years
 Kynar 500® Finishes: 30 years
 Anodized Finishes: 20 years

RECYCLED CONTENT:

Under the context of MR Credit 4 for the LEED® Green Building Rating System, Envelope 2000® contains the following recycled content (*based on weight*):

Post-Consumer: 4.8%
 Pre-Consumer: 20.6%
 (*post-industrial*)

PHYSICAL PROPERTIES:

PROPERTY	STANDARD (IN)	METRIC (MM)
PANEL COMPOSITION		
A Smooth Prefinished Aluminum Face ¹	.024" (min)	.609mm
B Thermoset Phenolic Resin Core ²	.105"	2.67mm
C Primed Smooth Aluminum Backer	.010"	.254mm
WEIGHT / THICKNESS		
Panel Weight	1.33 lbs/ft ²	6.47 kg/m ²
Nominal Thickness	5/32"	4mm
Core Density	89.0 lbs/ft ²	36.3 kg/m ²

¹.024" is the standard aluminum thickness. Some finishes are standard in .032" or .040".

²4mm is the most commonly utilized core thickness. 3mm, 6mm, 8mm thicknesses are also available.

TECHNICAL PROPERTIES:

PROPERTY	TEST	VALUE	UNIT
THERMAL PERFORMANCE			
R-Value	---	0.05	°F ft ² /BTU
Coefficient Of Thermal Expansion	ASTM D1237	1.11 ^{E-5}	in/in/°F
FIRE PERFORMANCE			
Steiner Tunnel (Flame Spread)	ASTM E84	Class A	---
Ignition Temperature	ASTM D1929	806°	°F
STRENGTH PERFORMANCE			
Minimum Bond Strength	ASTM D1781	34.5	lb-in/lb
Stiffness (EI)	ASTM E72	1.27 ^{E+3}	lb-in ² /ft width
Tensile Yield	ASTM E72	7.34 ^{E+3}	lb/ft width
Ultimate Tensile	ASTM E72	1.04 ^{E+4}	lb/ft width
Allowable Bending Moment	ASTM E72	1.82 ^{E+1}	lb-ft/ft width

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