

Alcoa Architectural Products

**PRODUCT REPORT**



*ZINC  
COMPOSITE  
MATERIAL:  
The Beauty  
Of Zinc,  
The Strength  
Of Reynobond®*



## REYNOBOND ZINC COMPOSITE MATERIAL®

**A**lcoa Architectural Products' Reynobond Zinc Composite Material (ZCM) combines the natural beauty of zinc with the flatness, durability, ease of fabrication and cost effectiveness that Reynobond® ACM is known for. It delivers all the benefits of composite material while projecting a feeling that's consistent with both classic and modern designs. Utilizing a Rheinzink® titanium zinc alloy, Reynobond ZCM comes in a natural blue-gray pre-weathered finish that matures over time as it is exposed to air and the elements—developing a natural zinc carbonate patina that protects the surface. Scratches and imperfections melt away over time as the natural patina develops and matures. ZCM is perfect for buildings that must project a natural, powerful image and can be used in natural settings, historic districts, or as accents to older buildings undergoing renovation.

### Performance Basics

- ZCM is an exceptionally strong and flat panel. See our website for additional information on stiffener requirements, special considerations and engineering properties available in a PDF format.
- ZCM can be fabricated to accommodate the most challenging interior and exterior design applications, and is extremely cost effective.
- ZCM comes standard with a Fire Resistant core for extra security. ZCM passes building codes and fire tests such as ASTM E84 Steiner Tunnel Test.
- Pre-weathered zinc is a self-healing material—it naturally develops a protective zinc carbonate layer or patina as it ages. Scratches and imperfections seem to melt away as the patina develops.
- ZCM is a non-corrosive, environmentally friendly natural product with a 100% clear water runoff.
- The ZCM Rheinzink skins have a lifetime potential of 100 years, depending on environmental conditions and proper installation.

### Product Application

- ZCM can be fabricated using the same equipment used for Reynobond ACM.
- ZCM can be installed with fasteners and extrusions made of aluminum, stainless steel, and galvanized steel.
- ZCM comes with strippable film for protection during fabrication and installation.
- ZCM is a stable composite product with zinc used on both upper and lower sides.
- ZCM is very flexible in design application. It can be used in modern urban districts or in historic settings where a natural surface is desired to blend into the surroundings.
- Alcoa Architectural Products recommends use of route and return or glazed panel systems in either a rain screen system or a silicone sealed joint condition, with adequate weeping capability incorporated into the design. Consult your Alcoa Architectural Products representative for details.

### PRODUCT BASICS

<b>Thickness</b>	4mm	
<b>Core</b>	FR Fire Resistant Core only	
<b>Skin Thickness</b>	0.028"/.71 mm/22 gauge	
<b>Zinc Skin Alloy</b>	Rheinzink® Titanium Zinc (Ti ≤ 1%, Zn ≥ 99%, Cu ≤ 1%)	
<b>Weight</b>	2.99 lb/ft <sup>2</sup> (14.60 kg/m <sup>2</sup> )	
<b>Maximum Width</b>	39.37" (1000 mm)	
<b>Maximum Length</b>	243" (6172 mm)	
<b>Coefficients of Expansion</b>	Longitudinal	12.2 x 10 <sup>-6</sup> in/in/°F
	ASTM E228 Transverse	9.4 x 10 <sup>-6</sup> in/in/°F

**PROJECT  
REPORT**

Shania Twain Centre

*Ontario, Canada*

**Architect:** B.H. Martin Consultants; Timmins, Ontario **General Contractor:** Cy Rheault Construction, Ltd.; Timmins, Ontario  
**Panel Fabricator:** Horizon Architectural; Grimsby, Ontario **Panel Type:** Reynobond ZCM **Quantity:** Approx. 7,000 square feet



**B**uilt on the site of one of the most productive gold mines in the Western Hemisphere, the Shania Twain Centre incorporates zinc, glass and British Columbian Fir accents into a facade inspired by traditional mining headframes. The gently curved roofline appears to float above its zinc overhang.

Architect B.H. Martin Consultants chose Reynobond ZCM panels for their strength, stability and natural appearance, which ages to a weathered blue-gray color. The finished facility captures the spirit of the rugged environment as well as the warm personality of its namesake—a country music superstar.

**PROJECT  
REPORT**

Durham Regional Police Station

*Ontario, Canada*

**Architect:** Barry Bryan Associates, Inc.; Whitby, Ontario **General Contractor:** Canning Contracting, Ltd.; Mississauga, Ontario  
**Panel Fabricator:** Cem-al Holdings, Ltd.; Pickering, Ontario **Panel Type:** Reynobond ZCM **Quantity:** 2,500 square feet

**S**eeking a long-lasting material that would fit in with the silos and galvanized metal roofs found throughout the region, architect Barry Bryan Associates selected Reynobond ZCM panels to enhance an already unusual mix of brick and light-colored composite material.

The ZCM panels were set on an angle, creating a striking juxtaposition with the station's dominant, clean lines. The design cleverly mimics the building's opposing occupants—cops and robbers. Police officers are



represented in the architecture by the straight and narrow elements, while the bad guys are reflected in the appropriately “crooked” portions of the facility.



**Alcoa Architectural Products**

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