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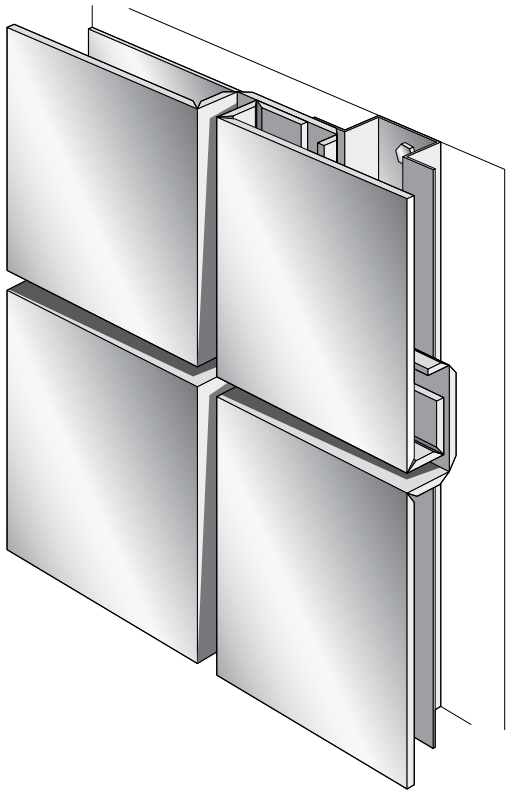
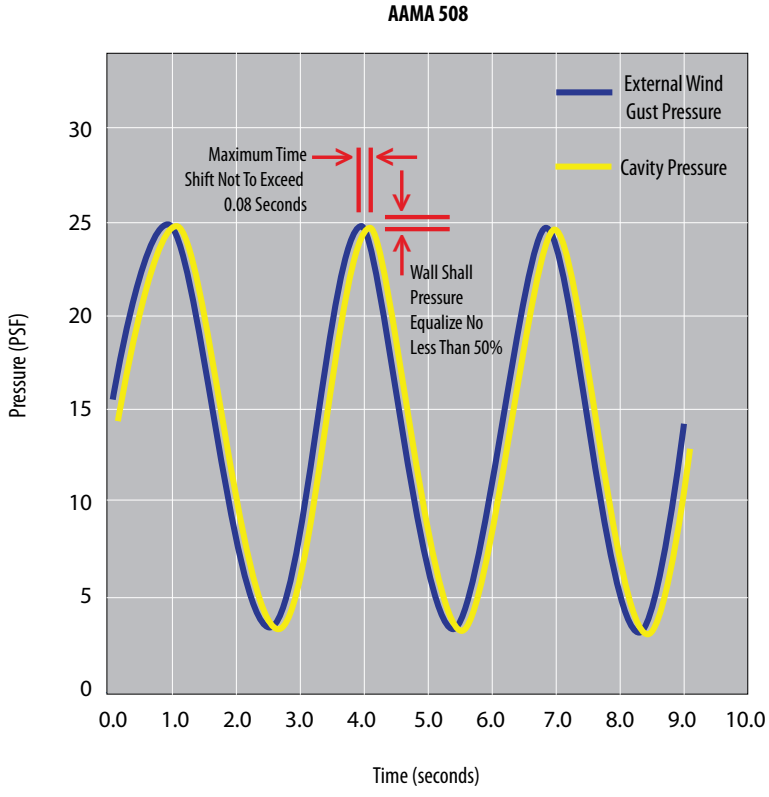
NOW-8100Z System

Description

The NOW-8100Z is a route-and-return vertical wall cladding system, which capitalizes on the superior finishes and flatness of zinc composite material (ZCM). Tested to AAMA 508, it is our pressure-equalized rainscreen (PERS), featuring an innovative one-component assembly that fabricates ZCM into a grid of concealed integral diverters, shedding water to the base of the system. The NOW-8100Z may be left open at top and bottom for enhanced ventilation.

The NOW-8100Z features no exposed trim, fasteners, or extrusions. Joint splines are unnecessary as the face material and recessed reveals are fabricated from the same stock. Return legs are fully exposed, for a crisp and attractive reveal. The NOW-8100Z series is the newest addition to our line of rainscreen systems. With a geographically suitable air and thermal barrier, this represents NOW at the height of our engineering capabilities.





AAMA 508

In 2005, American Architectural Manufacturers Association defined the Pressure-Equalized Rainscreen method with AAMA 508-05: Voluntary Test Method and Specification for Pressure Equalized Rain Screen Wall Cladding Systems. AAMA 508 is a prescriptive series of tests which establishes specific performance requirements for air infiltration, water infiltration, deflection resistance and pressure equalization between drainage plane and outside air. (See the chart at left for an indication of the stringency of the pressure equalization requirements.) The NOW-8100Z complies with all four requirements of this demanding test standard.

Material Properties on back

System Properties

System Depth	2 1/8”
Joint Width	½” (Nominal)
System Weight	3.84 lbs/SF
Fastener Type	#12 Dril-flex Phillip flat head (structural)
Fastener Type	#8 shoulder type screws (stitch)

Testing	Result
Air Infiltration @ 6.24psf	<0.01 cfm/ft^2
Water Resistance Test Pressure	15.00 psf
Uniform Load Deflection	± 40 psf
Uniform Load Structural	± 40 psf

Sheet Properties

Property	Value
Thickness	4 mm
Maximum Width	39.37 inches
Maximum Length	243 inches
Core	Flame Retardant Mineral Core
Alloy Materials	
Zinc	99%
Titanium	<1%
Copper	<1%
Available Finishes	Rheinzink Pre-weathered Blue / Grey
Weight	2.99 lb/SF
Allowable Bending Stress	7,250 lb/in^2
Coefficient of Expansion[3] ASTM E228	12.2 x 10^6 in/in/°F (Longitudinal) 9.4 x 10^6 in/in/°F (Transverse)
Stiffness (EI)	2,112 lb in^2/in (Longitudinal) 2,545 lb in^2/in (Transverse)
Flexural Modulus Aged & Tested per ASTM C393 Reported Values per ASTM D6272	9.25 x 10^6 lb/in (Longitudinal) 11.01 x 10^6 lb/in (Transverse)
Moment of Inertia	2.37 x 10^4 in^4/in
Section Modulus	3.02 x 10^3 in^3/in
Tensile Yield of Laminate ASTM D638	7,730 lb/in^2 (Longitudinal) 10,280 lb/in^2 (Transverse)
Flatwise Tensile ASTM C297	615 lb/in^2
Minimum Bond Strength ASTM D1781	20 in-lb/in
Flatwise Shear ASTM D1002	310 lb/in^2

(Values Assume 4mm Reynobond with Rheinzink Sheet)

Design

1. Avoid direct contact with acids, including those present in masonry cleaner, some sealants and woods, sweat, and solvents.
2. Avoid contact with standing water and sustained moisture on either side of the zinc sheet. Rainscreen systems modified for zinc are best for wall construction. Design wall assemblies with drainage cavities and proper back-ventilation. Minimum roof pitch is 1:12.
3. Zinc's coefficient of thermal expansion is roughly 50% higher than that of aluminum. Panel joinery and mounting should be designed accordingly.
4. Color variations will occur at the time of installation. Zinc exhibits a discernible grain orientation and adjacent panels should be designed accordingly.
5. Formation of zinc patina will vary depending on material orientation, climate, building geometry, and proximity to coastal regions. Carbon dioxide and pollution do not pose design concerns.
6. Areas shaded from weather will not form patina for many years.
7. Zinc oxychloride can form in high salt conditions, and may not wash away in dry environments. Please make color selections accordingly.
8. Pre-warm zinc if bending or folding under 50ºF.
9. Do not install zinc where it will encounter copper runoff. Incompatible materials include:
   - Copper
   - Non-galvanized steel
   - Some wood (including wood nailers at parapet walls and curtainwall perimeters)
   - Limestone dust
   - Gypsum dust

Annette Strauss Square – Dallas, Texas *Fabrication and Installation by NOW Specialties*

Continued on back

Maintenance

1. Avoid direct contact with acids, including those present in masonry cleaner, some sealants and woods, sweat, and solvents.
2. Maintenance personnel should handle zinc with white cotton gloves and long sleeves.
3. Clean fingerprints in strict accordance with manufacturer's instructions. Regular-strength detergents and abrasives will harm the material finish.
4. Normal maintenance includes:
   - Removal of foreign matter, with emphasis on decaying leaves.
   - Cleaning with a new cotton cloth soaked in warm water and a reduced-strength detergent. Apply cloth in the same direction as the finish. Limit cleaning to only those areas where foreign matter is noticeable.
   - Allowing light scratches to self-heal.

Environmental

1. Zinc waste will be accepted by any metal scrap dealer and ultimately converted into galvanizing.
2. Zinc runoff is non-hazardous. Zinc is an atomic element and most organisms need it to survive. Zinc deficiency is a much greater concern than zinc toxicity.
3. Zinc production requires half of the manufacturing energy of steel and one-quarter the manufacturing energy of aluminum.

Arizona Science Center – Phoenix, Arizona *Fabrication and Installation by Elward Systems Corporation*

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Premium MCM Fabricator
METAL CONSTRUCTION ASSOCIATION

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