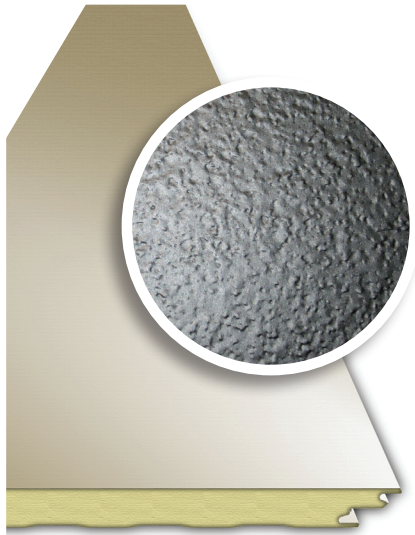


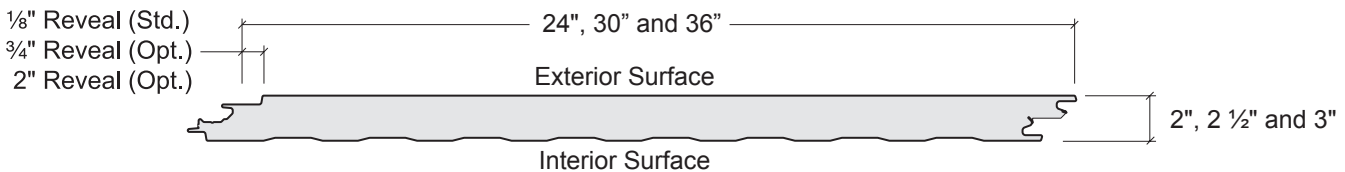
GRAND H



Grand H is manufactured for horizontal applications. It offers design flexibility and beautiful architectural aesthetics. Grand H has a stucco-embossed exterior and interior.

FEATURES AND BENEFITS

- ▲ Allows designers to mix multiple panel widths and colors on the same wall
- ▲ Allows flexibility for continuous corners along with a complete line of aluminum extrusions and accessories
- ▲ Can be mixed with vertical eco-Ficient panels to achieve most any look a designer requires



PRODUCT PARAMETERS

Panel Thicknesses:	2" 2 1/2" 3"
R-values by ASTM C 518 at 40° F:	15.9 19.9 23.8
Panel Widths:	24", 30" and 36"
Reveals Options:	1/8" (standard), 3/4" and 2"
Panel Lengths:	Recommended maximum is 24'
Insulation Material:	Non-CFC foamed-in-place polyisocyanurate foam cured to achieve a minimum density of 2.2 pounds
Joint Configuration:	Concealed Clips
Panel Exterior:	22 gauge
Panel Interior:	26, 24 and 22 gauge
Coatings:	Silicone Polyester, Kynar 500®/Hylar 5000®
Accessories:	Fasteners, Sealants, Brake-formed Flashings, Standard and Custom Trim
NOTE:	Corner panels, end folds and a comprehensive line of aluminum extrusions and rubber gaskets are also available to provide a complete wall system.

Technical Data : Performance and Certifications

The results of the test methods listed in the previous section are presented on the following table, with the exception of ASTM E72, E1592, ASTM C518, and ASTM C1363. ASTM E72 and E1592 are summarized in the Load Tables section of this document and results for ASTM C518 and C1363 (R-values, k-factors, U-factors) can be found on the MBCE website or by calling (877)713-6224.

Category	Characteristic	Test Method	Purpose	Result
Environmental	Thermal Transmission	ASTM C518	Measure the heat transmission coefficient per unit thickness (k-factor)	0.138 BTU-in/hr-ft ² -°F (R-7.25/inch) at 75°F mean temperature 0.121 BTU-in/hr-ft ² -°F (R-8.25/inch) at 25°F mean temperature
	Thermal Transmission	ASTM C1363	Measures the resistance to heat flow (or R-value) of a construction assembly in a guarded hot box	Varies up to R-7.69/inch of panel thickness at 75°F mean temperature
	Air Leakage Through Wall Panel Joints	ASTM E283	Determines the air leakage characteristics of metal wall panels under specified air pressure differences at ambient conditions	0.01 cfm/ft ² at 20 psf static pressure
	Water Penetration Through Wall Panel Joints	ASTM E331	Determines the resistance to water penetration of metal wall panels under uniform static air pressure difference	No uncontrolled water penetration through the panel joints at a static pressure of 20 psf
	Air Leakage Through Roof Panel Joints	ASTM E1680	Determines the resistance of exterior metal roof panel systems to air infiltration resulting from either positive or negative air pressure differences	0.051 cfm at 6.24 psf static pressure 0.066 cfm at 12 psf static pressure
	Water Penetration Through Roof Panel Joints	ASTM E1646	Determines the resistance to water penetration of metal roof panels under uniform positive static air pressure differences	No uncontrolled water penetration through the panel joints at a static pressure of 20 psf
Foam Properties	Foam Density	ASTM D1662	Determines the apparent density of rigid cellular plastics	2.0 pcf
	Foam Compressive Strength	ASTM D1621	Determines the behavior of cellular materials under compressive load	15 psi through-thickness 30 psi other directions
	Foam Tensile Strength	ASTM D1623	Measures the tensile strength of the foam from a cored sample	30 psi through-thickness 25 psi lowest any other direction
	Foam Shear Strength	ASTM C273	Measures the shear strength of the foam from a cored sample	15 psi lowest in any direction
	Closed Cell Content	ASTM D6226	Determines the porosity of cellular plastics for situations where it has a direct effect on their properties such as thermal resistance and water absorption	97.8%
Fire Resistance	Surface Burning Characteristics	ASTM E84	Provides comparative measurements of surface flame spread and smoke density measurements relative to that of select grade red oak and fiber-cement board surfaces under specific fire exposure conditions	Flame Spread index of 15, Smoke Developed index of 75
	Room Fire Performance	FM Global Standard 4880	Evaluates insulated roof and wall panels, interior finishes or coatings, and exterior wall systems for their performance in regards to fire	Class 1 Rating of wall and roof panels for use in unlimited height structures
	Roof Covering Fire Performance	ASTM E108	Provides a basis for relative performance of roof coverings in regards to simulated fire exposure to the outside	Class A Rating
Structural	Uplift Resistance	ASTM E1592 ASTM E72	Provides a standard procedure to evaluate or confirm structural performance under uniform static air pressure difference	See Load Chart Section
	Positive Load Resistance	ASTM E72	Tests the behavior of segments of wall construction under conditions representative of those encountered in service	See Load Chart Section
Roof Listings	Roof Performance – FM Global®	FM Global Standard 4471	Sets performance requirements for panel roofs including uplift resistance Requires a Class 1 Rating by FM Global Standard 4880 as a prerequisite	Class 1-75 Rating for IBL supported at 7' O.C. Class 1-90 Rating for IBL supported at 5' O.C.
	Roof Performance – Underwriters Laboratories®	UL 580	Determines the uplift resistance of roof assemblies consisting of the roof deck and roof covering materials	Class 90 Rating – Construction numbers 499 and 500
Wall Listings	Wall Performance – FM Global®	FM Global Standard 4881	Sets performance standards for panel walls including wind load resistance and hail resistance Requires a Class 1 rating by FM Global Standard 4880 as a prerequisite	Class S (severe) hail resistance rating. Class +30/-42 Zone H to +70/-98 Zone H depending on configuration. See FM Global Approval Guide for Building Products for complete listings.