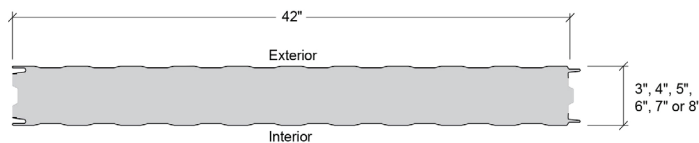




INSULATED METAL PANELS

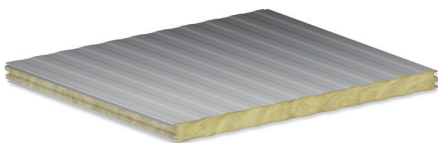
THERMALSAFE®

The ThermalSafe® panel consists of metal facings bonded to a structural mineral wool core to create a composite panel that achieves fire resistance ratings under the most demanding conditions. Unlike traditional wall materials, ThermalSafe® offers a level of flexibility architects, contractors and building owners won't find in any other product in the U.S. The mineral wool panel is rated for its 1-, 2- and 3-hour fire resistance qualities and provides satisfactory thermal performance and protection from the elements. The R-value of this panel is 3.61 per inch of insulation.



Features and Benefits:

- Resists high temperatures and will not burn because of mineral wool core
- Can be disassembled, moved and reinstalled rather than having to be demolished, waste materials disposed of and the walls completely rebuilt
- Our exclusive integral spline design eliminates labor to install a separate cement board spline at side joint of panels to maintain the fire rating.
- Good sound reduction acoustical properties because of mineral wool
- Dimensionally stable, water repellent and will not expand
- Can be combined with other insulated metal panels for an aesthetically consistent profile facing, texture and color



Product Specifications

Applications: Wall (Vertical or Horizontal)
Length: 8'-0" to 40'-0", variable by thickness
Coverage Widths: 42"
Thicknesses: 3", 4", 5", 6", 7", 8"
Panel Attachment: Through-fastened flush, double tongue-and-groove connection of the metal faces with an advanced integral spline to join the mineral wool core
Gauges: Exterior: 26, 24; Interior: 26, 24
Finishes: Exterior: Stucco-embossed, Ultra Light Mesa Profile; Interior: Stucco-embossed, Ultra Light Mesa Profile
Coatings: Exterior: Signature® 200, Signature® 300; Interior: Igloo White (standard)

U-Factors and R-Values*

U-Factor (BTU/h-ft ² ·° F)		R-Value (h-ft ² ·° F/BTU)	
PANEL WIDTH: 42"		PANEL WIDTH: 42"	
	75°		75°
3"	0.0923	3"	10.83
4"	0.0654	4"	15.29
5"	0.0529	5"	18.90
6"	0.0444	6"	22.51
7"	0.0383	7"	26.12
8"	0.0336	8"	29.73

Fire Ratings	
4"	1 Hour
7"	2 Hour
8"	3 Hour

INSULATED METAL PANELS

CATEGORY	CHARACTERISTIC	TEST METHOD	PURPOSE	RESULT
ENVIRONMENTAL	Thermal Transmission	ASTM C518	Measure the heat transmission coefficient per unit thickness (k-factor)	0.275 BTU-in/hr-ft ² -°F(3.63/inch) 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	0.04 cfm/ft ² at 12 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
CORE PROPERTIES	Core Density	ASTM C303	Standard Test Method for Dimensions and Density of Performed Block and Board-Type Thermal Insulation	8.5 psf +/- 10%
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 0 Smoke Developed index of 0
		ASTM E136	Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750 C.	Non-Combustible
	Room Fire Performance	FM 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 interior wall and ceiling panels for use in unlimited height structures. Exterior wall requires FM 4881 approval.
		ASTM E 119 and CAN/ULC S101	Standard Method of Fire Endurance Tests of Building Construction and Materials.	The Panels provides up to 3 hours of fire resistance rating.
		CAN/ULC S102	Standard Method of Test for Surface Burning Characteristics of Building Material and Assemblies.	Flame Spread index of 0 Smoke Developed Index of 0 Fuel Contributing Value of 0
		CAN4 S114	Test for Determination of Non-Combustibility in Building Materials.	Non-Combustible
STRUCTURAL	Positive and connection Load Resistance	ASTM E72	Tests the behavior of segments of wall construction under conditions representative of those encountered in service	See Load Chart Section

Descriptions and specifications contained herein were in effect at the time this publication was approved for printing. In a continuing effort to refine and improve products, MBCI reserves the right to discontinue products at any time or change specifications and/or designs without incurring obligation. To ensure you have the latest information available, please inquire or visit our website at www.mbc.com. Application details are for illustration purposes only and may not be appropriate for all environmental conditions, building designs or panel profiles. Projects should be designed to conform to applicable building codes, regulations and accepted industry practices. If there is a conflict between this manual and project erection drawings, the erection drawings will take precedence. MBCI's insulated metal panel product line is manufactured by Metl-Span®.

