

# THERMALSAFE<sup>®</sup>

## INSULATED METAL WALL PANEL

The ThermalSafe<sup>®</sup> insulated metal panel is equipped with fire-resistant and a LockGuard interlocking side joint, achieving a one-, two- or three-hour fire resistance rating for walls and 1.5 hours for ceilings to help ensure material, property and people are safeguarded from fire. The insulated metal panel combines advanced design with Metl-Span's expertise to create a composite panel with a core made from non-combustible structural mineral wool boards processed to maximize compressive strength. The fire-rated panel has superior structural characteristics and span capability.

### PRODUCT SPECIFICATIONS

**WIDTH** • 42"

**THICKNESS** • Nominal 3"<sup>†</sup>, 4", 5", 6", 7", 8"

For 5", 6", 7" and 8", contact Metl-Span engineering for details

**LENGTH** • NON-DIRECTIONAL EMBOSSED

8'-0" to 40'-0" — Variable by thickness, contact Metl-Span for exact maximum length for each thickness

**EXTERIOR PROFILE** • Ultra-Light Mesa, Santa Fe or Striated, nominal 1/32" deep, embossed

**EXTERIOR FACE** • G-90 galvanized or AZ-50 aluminum-zinc coated steel in 26 and 24<sup>§</sup> Ga.

**INTERIOR PROFILE** • Ultra-Light Mesa, nominal 1/32" deep, embossed

**INTERIOR FACE** • G-90 galvanized or AZ-50 aluminum-zinc coated steel in 26 and 24 Ga.

**WEIGHT, 26 GA. FACE** • 3" is 3.94 PSF, 4" is 4.65 PSF, 5" is 5.49 PSF, 6" is 6.21 PSF, 7" is 6.92 PSF, 8" is 7.63 PSF

**JOINT** • Exclusive LockGuard<sup>®</sup> side joint has a flush, double tongue-and-groove connection of the metal faces with an advanced integral spline to join the mineral wool core.

**CORE** • Non-combustible, rigid mineral wool lamellas. Mineral wool fibers are oriented perpendicular to the panel faces for maximum structural strength.

### LOCK & GROOVE SYSTEM



### PANEL



### PANEL PROFILE



**THERMAL VALUES** • K-Factor<sup>\*</sup> @ 75° F (24° C) is 0.275

**R-VALUE** • The core insulating properties are 3.61 "R" per inch

**FASTENING** • Available with either through-fastening across the width of the panel to the support framing or non-exposed fastening (NEF) by securing through the back of the panel for a flush visual appearance. Consult fire-resistant listings for fastener types and spacing. Fastening patterns may vary depending on specific windload and fire-resistant requirements.

U-FACTOR (BTU/h-ft<sup>2</sup>·°F)\*\*

PANEL WIDTH: 42"

	75°
3"	0.0856
4"	0.0654
5"	0.0529
6"	0.0444
7"	0.0383
8"	0.0336

R-VALUE (h-ft<sup>2</sup>·°F/BTU)\*\*

PANEL WIDTH: 42"

	75°
3"	11.68
4"	15.29
5"	18.90
6"	22.51
7"	26.12
8"	29.73

<sup>†</sup> No hourly rating available

<sup>§</sup> Ultra-light mesa and Striated only

<sup>\*</sup> K-Factor calculations: BTU in/ft<sup>2</sup>·hr. °F

<sup>\*\*</sup> Based on ASTM C518, ASTM C1363 and thermal modeling, 75° F core mean temp.

### FIRE TESTING APPROVALS • ASTM E119 CAN/ULC S101 UL263

#### Intertek Listings

4" panel: 1 hr vertical or horizontal wall  
6" panel: 2 hr vertical or horizontal wall  
6" panel: 1.5 hr ceiling or floor  
8" panel: 3 hr vertical or horizontal wall

#### UL Listings

4" panel: 1 hr vertical or horizontal wall  
7" panel: 2 hr vertical or horizontal wall  
8" panel: 3 hr vertical or horizontal wall

### Metl-Span: All-In-One Performance

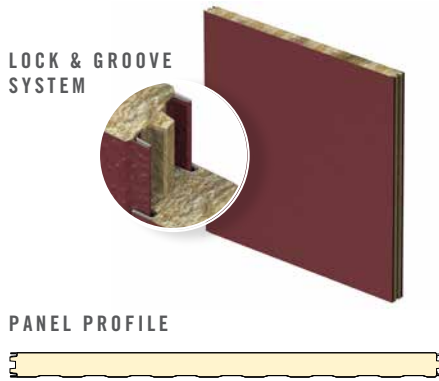
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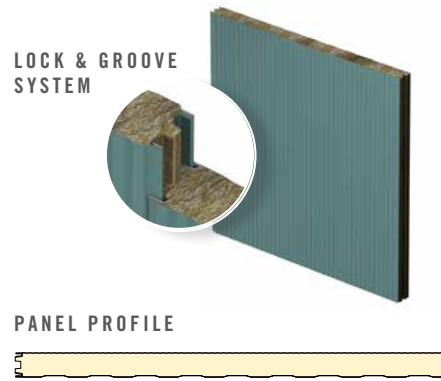
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## EXTERIOR PROFILES

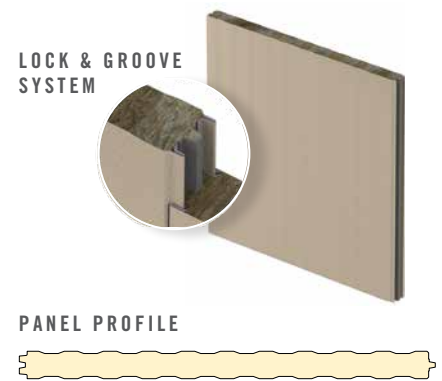
### THERMSAFE® SANTA FE PANEL



### THERMSAFE® STRIATED PANEL



### THERMSAFE® ULTRA-LIGHT MESA



## TESTING: THERMSAFE® INSULATED METAL WALL PANEL

TEST/APPROVAL	TEST METHOD	TEST TITLE	RESULTS
<b>Fire US</b>	ASTM E84	Surface Burning Characteristics of Building Materials	Flame spread 0, smoke developed 0
	ASTM E119 CAN/ULC S101 UL263	Fire Tests of Building Construction Materials	Intertek Listings: 4" panel: One hour vertical or horizontal wall 6" panel: Two hour vertical or horizontal wall 8" panel: Three hour vertical or horizontal wall 6" panel: 1.5 hour ceiling or floor
	ASTM E119 CAN/ULC S101 UL263	Fire Tests of Building Construction Materials	UL Listings: 4" panel: One hour vertical or horizontal wall 7" panel: Two hour vertical or horizontal wall 8" panel: Three hour vertical or horizontal wall
	FM 4880	Class 1 Fire Rating of Insulated Interior Wall and Ceiling Panels	Product approved (Interior Only) Exterior wall requires FM 4881 approval
	FM 4881	Class 1 Exterior Wall Structural Performance	FM4881 approved, Passed: Class +120/-120
	ASTM E136	Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750°C	Non-Combustible at 750° C/1382° F
<b>Fire Canada</b>	ASTM E119 CAN/ULC S101 UL263	Fire Endurance Tests of Building Construction Materials	UL Listings: 4" panel: One hour vertical or horizontal wall 7" panel: Two hour vertical or horizontal wall 8" panel: Three hour vertical or horizontal wall
	ASTM E119 CAN/ULC S101 UL263	Fire Tests of Building Construction Materials	Intertek Listings: 4" panel: One hour vertical or horizontal wall 6" panel: Two hour vertical or horizontal wall 8" panel: Three hour vertical or horizontal wall 6" panel: 1.5 hour ceiling or floor
	CAN/ULC S102	Surface Burning Characteristics of Building Materials and Assemblies	Flame Spread 0, Smoke Developed 0
<b>Structural</b>	ASTM E72	Strength Tests of Panels for Building Construction	See Load Charts
<b>Thermal Performance</b>	ASTM C518	Steady-State Thermal Transmission Properties by Means of the Heat-Flow Meter Apparatus	K-Factor of 0.275 BTU.in/hr.ft <sup>2</sup> .°F at 75° F mean core
<b>Air Infiltration</b>	ASTM E283	Rate of Air Leakage Through Curtain Walls Under Specified Pressure Differences	0.04 cfm/ft <sup>2</sup> at 12 psf
<b>Water Infiltration</b>	ASTM E331	Water Penetration of Exterior Walls by Uniform Static Air Pressure Differences	No uncontrolled leakage when tested to a static pressure of 20 psf
<b>Special Approval</b>	State of Florida	Product Approval for the State of Florida	Product has State of Florida approval

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, Metl-Span 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 [metlspan.com](http://metlspan.com).