

THERMALSAFE®



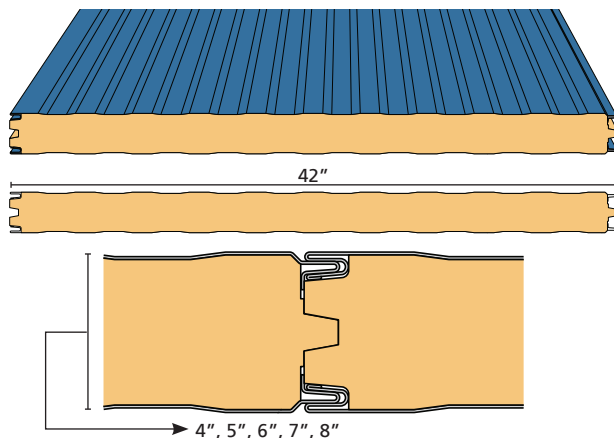
ThermalSafe® insulated metal panels are fire resistant. Consisting of metal facings bonded to a structural mineral wool core, this composite panel for exterior walls, partitions, ceilings and liners is rated for one-, two- or three-hour fire resistance.

In addition to fire resistance, ThermalSafe® panel provides good thermal performance and reduces sound transmission.

The unique LockGuard® side joint speeds the installation process and enhances the fire resistance of the panel with its tongue-and-groove engagement of the mineral wool core.

FEATURES AND BENEFITS

- A non-combustible core resists high temperatures and will not burn, providing excellent fire resistant qualities.
- One-step construction process assures rapid completion of the wall system. Factory fabricated composite panels are attached directly to the supporting structure eliminating the multiple steps associated with installation of concrete blocks or numerous layers of gypsum wallboard.
- Superior thermal performance and protection from the elements across the entire wall area. The advanced mineral wool core provides enhanced insulated values that significantly lower heating and cooling costs.
- Reusable panels can be disassembled, moved and reinstalled rather than having to be demolished, waste materials disposed of and walls completely rebuilt.
- Better sound absorption acoustical properties are achieved with ThermalSafe® compared to foam insulated metal panels.
- Aesthetic profile can be combined with other foam insulated wall panels for consistency in profile, texture and color.



USES AND APPLICATIONS

In new and retrofit construction, ThermalSafe® panels function as exterior fire resistant separation walls, ceilings or as fire partitions and barriers inside buildings that contain multiple tenant leased space.

They are ideally suited for:

ARCHITECTURAL

- Arenas
- Gymnasiums
- All High Occupancy Structures

COMMERCIAL & INDUSTRIAL

- Auxiliary Buildings at Refineries
- Bakeries
- Food Processing Facilities
- Manufacturing Plants
- Warehouses

COLD STORAGE

- Recommended for cold storage buildings

MATERIAL SPECIFICATIONS					
EXTERIOR PROFILE	Light Mesa Wave pattern, nominal 1/32" deep.				
INTERIOR PROFILE	Light Mesa wave pattern, nominal 1/32" deep.				
FOAM CORE	Non-combustible, rigid mineral wool lamellas. Mineral wool fibers are oriented perpendicular to the panel faces for maximum structural strength.				
THERMAL VALUE	K-factor, Btu in/ft ² hr °F @ 75°F mean core temperature = 0.275				
R-VALUE	The core insulating properties are 3.61 "R" per inch.				
MODULE WIDTH	42"				
PANEL THICKNESS	3" TSNC*, 4", 5", 6", 7" & 8" * 3" TSNC (ThermalSafe® Non-Combustible) does not have a fire rating, however can be applied as a non-combustible wall.				
PANEL LENGTHS	8'-0" to 40'-0" variable by thickness. Contact Robertson for exact maximum length for each thickness.				
PANEL WEIGHT 26 GA. FACES	4"	5"	6"	7"	8"
	4.65psf	5.49psf	6.21psf	6.92psf	7.63psf
EXTERIOR FACINGS	Stucco embossed, G-90 galvanized and/or AZ-50 aluminum-zinc coated steel in 26 Ga. and 24 Ga.				
INTERIOR FACINGS	Stucco embossed, G-90 galvanized and/or AZ-50 aluminum-zinc coated steel in 26 Ga. and 24 Ga. Type 304 stainless steel in 26 Ga. embossed and unpainted.				
EXTERIOR FINISHES & COLORS	Siliconized Polyester, Fluoropon® Full-Strength 70% PVDF Fluoropolymer Coating.				
	Note: 1. Dark colors are not recommended for exterior color on cooler and freezer buildings. 2. Prices may vary by color, gauge and quantity of metal.				
INTERIOR FINISHES & COLORS	USDA-compliant Polyester, Igloo White. USDA-compliant PVC Plastisol Polar White				
LOCKGUARD® JOINT	Flush double tongue-and-groove interlock of the metal faces and machined integral spline of the mineral wool core.				
FASTENING	Through fastening across the width of the panel to the support framing. Consult fire resistive listings for fastener types and spacing. Fastening patterns may vary depending on specific wind-load and fire resistive requirements.				

RECOMMENDED MAXIMUM PANEL LENGTH					
PANEL FACE GAUGES EXT/INT	4"	5"	6"	7"	8"
26/26	40'-0"	40'-0"	40'-0"	37'-0"	34'-0"
24/26	40'-0"	40'-0"	40'-0"	36'-0"	33'-0"
24/24	40'-0"	40'-0"	39'-0"	35'-0"	31'-0"

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TESTS AND CERTIFICATIONS			
		Standard	Standard / Test Description
Certifications	Fire Performance	FM Approval Standard 4880	Class 1 Fire Rating of Interior Insulated Wall and Ceiling Panels
		ASTM E84	Surface Burning Characteristics of Building Materials
		ASTM E119	Fire Tests of Building Construction Materials
	Structural Performance	CAN/ULC S101	Standard Methods of Fire Endurance Tests of Building Construction and Materials
		ASTM E72	Strength Tests of Panels for Building Construction
	Vapor Barrier Performance	ASTM E283	Rate of Air Leakage Through Curtain Walls Under Specified Pressure Differences
ASTM E331		Water Penetration of Exterior Walls by Uniform Static Air Pressure Differences	

FIRE RESISTANCE DATA	
1. Wall Panels	1. The finished panel in a four (4) inch thickness shall meet the requirements of a one (1)-hour fire resistance rating for a non-bearing wall in accordance with UL263 per (UL design U050 for US and design W021 for Canada), ASTM E 119 and CAN/ULC S101 (per Intertek design MS/WA 60-1).
	2. The finished panel in a six (6) inch thickness meets the requirements of a two (2)-hour fire resistance rating for a non-bearing wall in accordance with ASTM E 119 and CAN/ULC S101 (per Intertek design MS/WA 120-1).
	3. The finished panel in a seven (7) inch thickness shall meet the requirements of a two (2)-hour fire resistance rating for a non-bearing wall in accordance with UL 263 (per UL design U050 for US and design W021 for Canada).
	4. The finished panel in an eight (8) inch thickness shall meet the requirements of a three (3)-hour fire resistance rating for a non-bearing wall in accordance with UL 263 (per UL design U050 for US and W021 for Canada).
2. Ceiling Panels	1. The finished panel in a six (6) inch thickness shall meet the requirements of a one and a half (1-1/2) hour fire resistance rating for a ceiling in accordance with ASTM E 119 and CAN/ULC S101 (per Intertek design FC200).
3.	Wall-framing support members and adjacent construction may require fire protection as specified by applicable building code. The customer is responsible for specifying the appropriate fire protection of these areas. Notice: The information herein is intended to provide a general understanding of the ThermalSafe® panel and related fire protection requirements. For any specific application, the exact fire protection requirements must be obtained from the appropriate federal/state/provincial/local building code and/or fire code authority.

Load span tables and notes are available at RobertsonBuildings.com