

TremLock® ThermalRock™

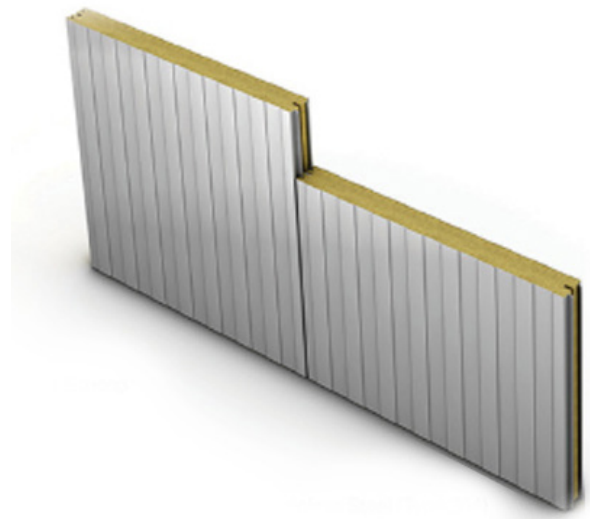
Insulated Metal Panel

FEATURES

Versatile
Hourly Fire Rated

BENEFITS

- Partition Wall, Liner Wall, Ceiling
- Hourly Fire Rated



DESCRIPTION

TremLock ThermaRock is a versatile, hourly fire rated insulated metal panel for use as an exterior wall, partition wall, liner wall, ceiling.

BASIC USES

TremLock ThermalRock is for use as an exterior wall, partition wall, liner wall, ceiling.

SYSTEM DESIGN

TremLock ThermalRock panels are designed with a 47.375" coverage width. Available lengths of 8'-0" to 30'-0". Panel thickness options of 4, 5, 6, 8, 10, 12-inch. Exterior Gauge availability of 24 and 26. Interior gauge of 26. Exterior Substrate is Galvalume (registered symbol), G90, Stainless Steel. Interior substrate Galvalume (registered symbol), G90, Stainless Steel. Joint is double tongue-and-groove with spline. Spline is fiber-reinforced cement board (1/2" x 2-3/4" x 8' long) Core is ROXUL(Registered symbol) ConRock L structural mineral wool. K-factor 0.277 Btu-in/hr ft ^{-F} @ 40 degrees F mean temperature (R-3.61)

FINISH/COLOR

Exterior Finish: Polyester, Siliconized PolyesterPVDF, Plastisol (PVC)
Interior Finish: Polyester, Siliconized Polyester, Plastisol (PVC)
Exterior Texture: Embossed
Interior Texture: Embossed

APPLICATION

TremLock ThermalRock is an hourly fire rated, insulated metal panel for use as an exterior wall, partition wall, liner wall and ceiling. Standard panel lengths 8'0" - 30' 0". Please inquire for longer panel lengths.

PERFORMANCE

Panel Thickness (in.)	Fire Rating (hr.)	Weight (psf)	Thermal U-factor (BTU/hr • ft ² • F°)	R-factor (hr • ft ² • F° / BTU)
4	1	4.6	0.069	14.49
5	2	5.3	0.055	18.18
6	3	6.0	0.046	21.74
8	3	7.5	0.035	28.57
10	3	8.9	0.028	35.71
12	3	10.3	0.023	43.48

Hourly fire-rating certifications are based upon the test method and acceptance criteria in ANSI/UL 263 (ASTM E119) "Fire Tests of Building Construction and Materials."

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TESTING

TYPE	TEST PROTOCOL	DESCRIPTION	RESULTS
ENVIRONMENTAL PERFORMANCE	ASTM C518	Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus	K-Factor 0.139 BTU-in/hr-ft ² -F° at 75° mean K-Factor 0.129 BTU-in/hr-ft ² -F° at 35° mean
	ASTM E283	Rate of Air Leakage Through Exterior Windows, Curtain Walls and Doors Under Specified Pressure Differences Across the Specimen	0.0011-cfm/sf at 20-psf
	ASTM E331	Water Penetration of Exterior Windows, Skylights, Doors and Curtain Walls by Uniform Static Air Pressure Difference	Zero penetration at 20-psf
FOAM CORE CHARACTERISTICS	ASTM C273	Shear Properties of Sandwich Core Materials	Shear Strength = 16-psi
	ASTM D1621	Compressive Properties of Rigid Cellular Plastics	Compressive Strength – 18-psi
	ASTM D1622	Apparent Density of Rigid Cellular Plastics	Apparent Density – 2.25-pcf
	ASTM D1623	Tensile and Tensile Adhesion Properties of Rigid Cellular Plastics	Tensile Strength – 21-psi
	ASTM D6226	Open Cell Content of Rigid Cellular Plastics	Open Cell Content ≥ 90% closed cells
FIRE RESISTANCE	ASTM E84	Surface Burning Characteristics of Building Materials	Flame Spread < 25, Smoke Developed < 450
	NFPA 285	Standard Fire Test Method for Evaluation of Fire Propagation Characteristics of Exterior Non-Load-Bearing Wall Assemblies Containing Combustible Components	Passed – see technical bulletin ATB-0007
	FM 4880	Factory Mutual Approval Standard for Class 1 Fire Rating of Insulated Wall or Wall and Roof/Ceiling Panels, Interior Finish Materials or Coatings and Exterior Wall Systems	Class 1 Fire Rated – see technical bulletin ATB-0005
IMPACT RESISTANCE	FM 4881	Factory Mutual Approval Standard for Class 1 Exterior Wall Systems	
	TAS 201	Florida Building Code Impact Test Procedure	Miami Dade County NOA No. 15-0204.02

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TESTING (Continued)

TYPE	TEST PROTOCOL	DESCRIPTION	RESULTS
ENGINEERING PROPERTIES	ASTM E1592	Structural Performance of Sheet Metal Roof and Siding Systems by Uniform Static Air Pressure Difference	See Load Tables
	ASTM E72	Strength Tests of Panels for Building Construction	See Load Tables
	FM 4881	Factory Mutual Approval Standard for Class 1 Exterior Wall Systems	Class 1 Approved – see technical bulletins ETB-0008 and ETB-0013
APPROVALS	Miami-Dade County	Miami-Dade County Product Control Section – Notice of Acceptance	Miami Dade County NOA No. 15-0204.02
	State of Florida	Florida Product Approval	#16327-R1
	TX Dept. of Insurance	Product Evaluation	Evaluation ID: EC-103
BOND STRENGTH	Fatigue Endurance	2,000,000 Alternating Cycles of L/180 Deflection	No evidence of facer or liner delamination, fracture of foam core or permanent set
	Freeze/Heat Cycle	Twenty-One (21) Eight-hour Temperature Cycles (-20° F to 180° F)	No evidence of delamination, blistering or permanent set
	Humidity Endurance	1,200 Hours of 93% Humidity at a Temperature of 158° F	No evidence of delamination, blistering or interface corrosion
	Autoclave	Exposure to 218° F and a pressure of 2-psig for 2½ hours	No evidence of facer or liner delamination

MAINTENANCE

Your local Tremco Roofing sales representative can provide you with effective maintenance procedures which may vary, depending upon specific conditions. Periodic inspections, early repairs and preventative maintenance are all part of a sound roof program.

PRECAUTIONS

Users must read container labels and Safety Data Sheets for health and safety precautions prior to use.

TECHNICAL SUPPORT

Your local Tremco Roofing sales representative, working with the Technical Service Staff, can help analyze conditions and needs to develop recommendations for special applications.



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