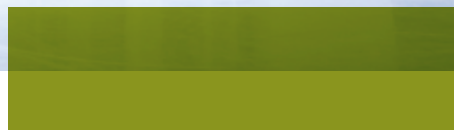


ROXUL SAFE™ 55 & 65 and ROCKWOOL PLUS™ MB

Insulation for Pre-Engineered Metal Buildings



Exterior Wall Insulation for Pre-Engineered Metal Buildings

ROXUL SAFE™ 55 & 65 and ROCKWOOL PLUS™ MB are non-combustible, high-density insulation products for interior and exterior walls in pre-engineered metal building construction. This stone wool insulation is made from natural stone and recycled content, providing exceptional fire-resistance and energy-saving properties. While similar in thermal insulating properties, each product is designed for specific building applications.



ROXUL SAFE™ 55 & 65 and ROCKWOOL PLUS™ MB products are used to insulate walls in pre-engineered metal buildings. ROXUL SAFE™ 55 & 65 are ideally suited for zero lot line applications where buildings are in close proximity and fire safety is essential.

Assemblies for Zero Lot Line and Exterior Wall Applications

Basic Concept of a Fire Rated Wall Featuring ROXUL SAFE™ 55 & 65 Insulation in the Wall Assembly

ROXUL SAFE™ 55 & 65 are non-combustible, rigid stone wool insulation boards that provide added fire protection for metal buildings in close proximity.

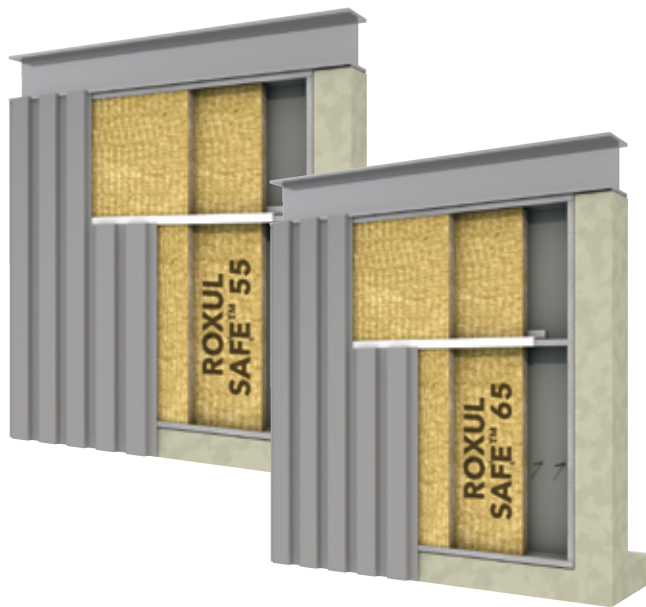
ROXUL SAFE™ 55 & 65 are designed for interior or exterior non-load bearing metal panel wall assemblies where a fire resistance rating is required.

ROCKWOOL offers the option of one or two hour, single side or double sided fire rated assemblies.

ROCKWOOL PLUS™ MB is a lightweight, non-combustible, semi-rigid blanket insulation, designed for metal building construction where an hourly fire rating is not required.

Insulating buildings with ROCKWOOL PLUS™ MB will help increase energy efficiency, improve thermal stability, and enhance fire protection for the overall comfort and safety of occupants.

That's why ROCKWOOL PLUS™ MB is the insulation of choice for today's green builders in commercial construction.



Components: Exterior Metal Cladding, ROXUL SAFE™ 55 or 65, Z-Bar Girts, Ceramic Fire Blanket (Z-Girt Cover), Flashing Channels, Wall and Partition Facings/Accessories

Note: For ULC Designs W610 and W611 ceramic strips required on two sides. For actual designs please reference UL/ULC Directories.



Components: Exterior Metal Cladding, ROCKWOOL PLUS™ MB, Z-Bar Girts, Flashing Channels, Wall and Partition Facings/Accessories



These products also provide superior performance in acoustic assemblies, as well as in applications for mechanical equipment isolation and insulation.

Fire Resistance

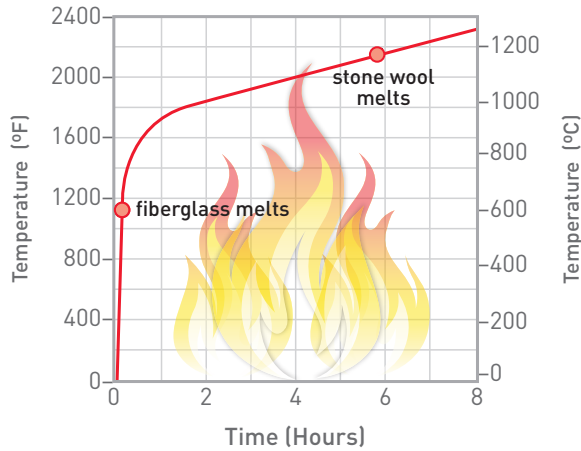
ROXUL SAFE™ 55, ROXUL SAFE™ 65 and ROCKWOOL PLUS™ MB are non-combustible, able to withstand temperatures up to 2150°F (1177°C), and do not produce smoke or propagate flames, providing a critical line of defense in fire protection.

These products provide high temperature fire protection, particularly when a fire separation wall is required

ROXUL SAFE™ 55 & 65's fire resistance ratings allow builders to reduce the required separation and increase the area of buildings in close proximity to each other.



Temperature Development in a Standard Fire (ASTM E119)



ROXUL SAFE™ 55 & 65 are able to withstand the intense heat of fire approaching 2150°F (1177°C) without melting or burning. They are specifically designed to meet building codes in high density areas where buildings are in close proximity.

Fire-Rated Exterior Non-Load Bearing Sheet Steel Walls

Product	Fire Resistance Rating	Fire Protection	UL Design No.	ULC Design No.	Thickness*	W x L
ROXUL SAFE™ 65	1HR	From 1 Side	U654	W605	3" (76 mm) (2 layers)	24" x 48" (610 x 1220 mm)
		From 2 Sides	*Contact ROCKWOOL Technical Services	W610		31.5" x 48" (800 x 1220 mm)
ROXUL SAFE™ 55	2HR	From 1 Side	U655	W606	4" (102 mm) (2 layers)	32" x 48" (813 x 1220 mm)
		From 2 Sides	*Contact ROCKWOOL Technical Services	W611		24" x 48" (610 x 1220 mm)
						31.5" x 48" (800 x 1220 mm)
						32" x 48" (813 x 1220 mm)

*ROXUL SAFE™ 65 & ROXUL SAFE™ 55 products are installed using 2 layers of 3" or 4" material respectively.

High-Performance Insulation Designed for Pre-Engineered Metal Buildings

Energy-Saving Thermal Performance

The excellent thermal properties of ROCKWOOL PLUS™ MB, ROXUL SAFE™ 55 and ROXUL SAFE™ 65 contribute to energy efficient building envelopes helping to reduce ongoing energy costs. ROCKWOOL PLUS™ MB delivers consistent thermal performance across the board in metal building wall construction, maintaining an R-value of R4. ROXUL SAFE™ 65 and ROXUL SAFE™ 55 maintain R-values of R4.2 and R4.3, respectively.



Water Repellent

The structure and integrity of ROCKWOOL insulation are not affected by the presence of water. The product is water repellent, resisting the infiltration of water into the system. It is compatible with air/vapor barrier systems to provide an extra layer of protection against moisture and thermal transfer. The product is inorganic and therefore does not rot, corrode, or promote fungi, mold and bacterial growth.



Superior Sound Absorption

ROXUL SAFE™ 55, ROXUL SAFE™ 65 and ROCKWOOL PLUS™ MB demonstrate superior sound attenuation characteristics. The unique multi-directional fiber structure and high density effectively trap and dissipate sound waves reducing noise transmission into and out of the building.



ROXUL SAFE™ 55 & 65 Technical Data

Compliance and Performance

ASTM C612	Mineral Fiber Block and Board Thermal Insulation	Type IVB, Complies
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Fire Performance

CAN/ULC S411	Test for Non-Combustibility	Non-Combustible
CAN/ULC S102	Surface Burning Characteristics	Flame Spread = 0 Smoke Developed = 0

Maximum Service Temperature

ASTM C411	Hot Surface Performance	In Compliance with ASTM C612 @ 1200°F (650°C)
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Dimensional Stability

ASTM C356	Linear Shrinkage	<1% @ 1200°F (650°C)
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Moisture Resistance

ASTM C1104	Moisture Sorption	0.04%
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Thermal Resistance

ROXUL SAFE™ 65 ASTM C518 (C 177)	R-value/inch @75°F RSI value/25.4 mm @25°C	4.2 hf. ft². F/BTU 0.74 m²K/W
ROXUL SAFE™ 55 ASTM C518 (C 177)	R-value/inch @75°F RSI value/25.4 mm @25°C	4.3 hf. ft². F/BTU 0.76 m²K/W

Corrosive Resistance

ASTM C665	Corrosiveness to Steel	Pass
ASTM C795	Stainless Steel Stress Corrosion Specification as per Test Methods C871 and C692: U.S. Nuclear Regulatory Commission, Reg. Guide #1.36: U.S. Military Specifications – 24244 (all versions including B and C)	Conforms

Dimensions

24" W x 48" L (610 mm x 1219 mm) 31.5" W x 48" L (800 mm x 1219 mm) 32" W x 48" L (813 mm x 1219 mm)
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Thickness

ROXUL SAFE™ 65 ROXUL SAFE™ 55	3" (76 mm) Thickness 4" (102 mm) Thickness
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ROCKWOOL PLUS™ MB Technical Data

Compliance and Performance

ASTM C553	Standard Specification for Mineral Fiber Blanket Thermal Insulation for Commercial and Industrial Applications	Type I, II, III
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Fire Performance

CAN/ULC S102	Surface Burning Characteristics	Flame Spread = 0 Smoke Developed = 0
ASTM E84 (UL 723)	Surface Burning Characteristics	Flame Spread = 0 Smoke Developed = 0
CAN4-S114	Determination of Non-Combustibility	Non-Combustible

Maximum Service Temperature

ASTM C411	Maximum Recommended Use Temperature	450°F (232°C)
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Dimensional Stability

ASTM C356	Linear Shrinkage	0.74 % @ 450°F (232°C)
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Moisture Resistance

ASTM C1104	Water Vapor Sorption	0.028%
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Thermal Resistance

ASTM C518 (C177)	R-value/inch @ 75°F RSI value/25.4 mm @ 24°C	4.0 hf. ft ² . F/BTU 0.71 m ² K/W
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Corrosive Resistance

ASTM C665	Corrosiveness to Steel	Pass
ASTM C795	Stainless Steel Stress Corrosion Specification as per Test Methods C871 and C692: U.S. Nuclear Regulatory Commission, Reg. Guide #1.36: U.S. Military Specifications MIL-I-24244 (all versions including B and C)	Conforms

Dimensions

24" W x 48" L (610 mm W x 1219 mm L)	Product thickness available in 2" through 4" in ½" increments as well as 5" and 6" offerings.
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Density

ASTM C612-00	2.0 lbs/sq.ft.3 32 kg/m ³
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At the ROCKWOOL Group, we are committed to enriching the lives of everyone who comes into contact with our solutions. Our expertise is perfectly suited to tackle many of today's biggest sustainability and development challenges, from energy consumption and noise pollution to fire resilience, water scarcity and flooding. Our range of products reflects the diversity of the world's needs, while supporting our stakeholders in reducing their own carbon footprint.

Stone wool is a versatile material and forms the basis of all our businesses. With approx. 10,500 passionate colleagues in 38 countries, we are the world leader in stone wool solutions, from building insulation to acoustic ceilings, external cladding systems to horticultural solutions, engineered fibres for industrial use to insulation for the process industry and marine & offshore.

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