

CURTAINROCK® and ROXUL SAFE™

Insulation for Curtain Wall Systems



Superior Protection and Performance in a Curtain Wall System

- ✓ Fire Resistant
- ✓ Long-Term Stable R-Value
- ✓ Sound Absorbent
- ✓ Water Repellent
- ✓ Environmentally Sustainable



Components: Concrete Floor Slab, ROXUL SAFE™, Fire sealant, Mullion cover – CURTAINROCK®, Transom, Stiffeners, Spandrel panel.

ROXUL SAFE™

ROXUL SAFE™ is a lightweight, semi-rigid stone wool insulation that provides fire-stopping and acoustical properties. It is designed to fill perimeter gaps between concrete floor slabs and exterior wall systems, between firewalls and ceiling slabs, and around conduit pipes and duct openings through walls and floor slabs.

It is non-combustible and fire resistant, and will not develop toxic smoke or promote flame spread, even when exposed directly to a fire. When ROXUL SAFE™ is used with CURTAINROCK® 40/80, it provides a comprehensive fire-stopping system that has been UL/ULC/Intertek tested and approved for perimeter fire containment systems.

ROXUL SAFE™ is always used in conjunction with a fire sealant to prevent passage of fire and smoke from one floor to the next.

CURTAINROCK®

CURTAINROCK® is a lightweight, semi-rigid stone wool insulation board designed for curtain wall systems. ROCKWOOL offers CURTAINROCK®, CURTAINROCK® 40, and CURTAINROCK® 80 to meet a wide variety of curtain wall specifications.

Product Specifications

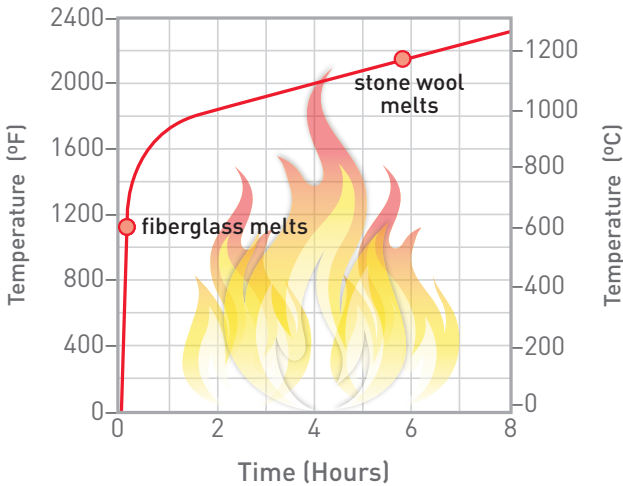
Product	Dimensions W x L	Thickness						
		1"	1.5"	2"	3"	4"	5"	6"
CURTAINROCK®*	24" x 48" (610 mm x 1219 mm)	✓	✓	✓	✓	✓	✓	✓
	24" x 60" (610 mm x 1524 mm)			✓				
CURTAINROCK® 40	24" x 48" (610 mm x 1219 mm)			✓	✓	✓	✓	
	24" x 60" (610 mm x 1524 mm)					✓		
	36" x 60" (914 mm x 1524 mm)			✓	✓	✓		
	48" x 72" (1219 mm x 1829 mm)					✓	✓	
CURTAINROCK® 80	24" x 48" (610 mm x 1219 mm)	✓		✓	✓	✓		
	36" x 60" (914 mm x 1524 mm)			✓	✓	✓		
	48" x 72" (1219 mm x 1829 mm)			✓	✓	✓		
ROXUL SAFE™	24" x 48" (610 mm x 1219 mm)			✓	✓	✓		

Fire Resistance

CURTAINROCK® is non-combustible and fire-resistant, and will not develop smoke or promote flame spread when exposed to fire, providing a critical line of defense in fire protection.

ROCKWOOL stone wool products have an extremely high melting point of 2150 °F (1177 °C). When used in combination with ROXUL SAFE™, CURTAINROCK® 40 and CURTAINROCK® 80 provide a comprehensive fire-stopping system that has been UL/ULC/Intertek tested and approved for perimeter fire containment systems.

Temperature Development in a Standard Fire (ASTM E119)



Designed by James K. M. Cheng Architects Inc., the visually stunning Living Shangri-La hotel, located on the Vancouver waterfront, was built using CURTAINROCK® and ROXUL SAFE™ products as its specified insulation.

Fire Performance

Product	Specification	Test	Result
ROXUL SAFE™, CURTAINROCK® CURTAINROCK® 40/80	ASTM E136	Behaviour of Materials at 750 °C (1382 °F)	Non-Combustible
ROXUL SAFE™, CURTAINROCK® CURTAINROCK® 40/80	CAN4 S114	Test for Non-Combustibility	Non-Combustible
ROXUL SAFE™, CURTAINROCK® CURTAINROCK® 40/80	ASTM E 84(UL 723) and CAN/ULC S102	Surface Burning Characteristics	Flame Spread = 0 Smoke Developed = 0
CURTAINROCK® 40/80	ASTM E2307/E119	Perimeter Fire Barrier Systems	Complies
ROXUL SAFE™	CAN4 S115M	Standard Test Method/Fire Stop Systems	Complies
ROXUL SAFE™	CAN/ULC-S129	Smoulder Resistance	0.01%

Thermal Resistance

The R-value of ROCKWOOL insulation will not change over time because stone wool is not produced with blowing agents, which off-gas and result in lower thermal performance. Not only is the thermal performance of ROCKWOOL insulation maintained over its lifetime, but the wall's thermal performance remains consistent because ROCKWOOL products are dimensionally stable.

ROCKWOOL insulation will not expand or contract due to temperature variances in the curtain wall system. These attributes result in optimal thermal performance of a building envelope.



Developer Monterey Park used ROCKWOOL CURTAINROCK® insulation for its recently opened 75,000 sq. ft. commercial building in Brampton, Ontario.

Thermal Performance

Product	Specification	Test	Result
CURTAINROCK®	R-Value / inch @ 75°F	ASTM C518 (C177)	4.2 hr.ft².F/Btu 0.74 m²K/W
CURTAINROCK® 40/80	RSI value / 25.4 mm @ 24°C		4.3 hr.ft².F/Btu 0.75 m²K/W



THE RITZ-CARLTON

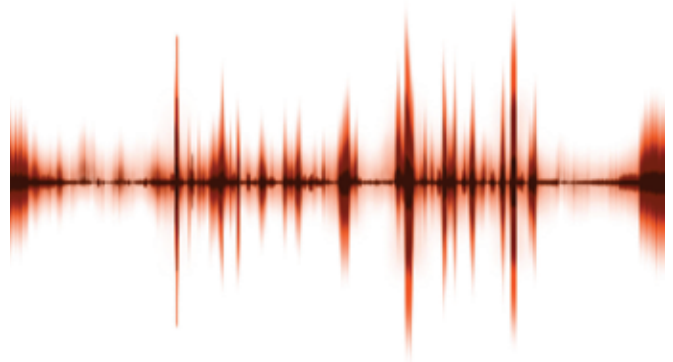
Putting on the Ritz

The elegant and post-modern 53 storey Ritz-Carlton hotel/condominium in Toronto was built using more than 30,000 sq.ft of CURTAINROCK® and ROXUL SAFE™ insulation. ROCKWOOL insulation is recognized and trusted by top architects and contractors across North America who specify our products for energy efficiency, sustainability, fire protection, water resistance, and sound control. Rumenest asitate labo. Elit pliat od magnimus dollatiora ex et dolo ea voluptam nate verchic ientisto optatur molupta ssimaio omnis sanisint verum voluptatem

Minimizing Noise with Superior Sound Absorption

CURTAINROCK® demonstrates superior sound attenuation characteristics. The unique multi-directional fiber structure and high density effectively traps and dissipates sound waves, reducing noise transmission into and out of the building.

ROXUL SAFE™ shares the same unique fiber structure and density, also allowing for greater sound attenuation.



In addition to superior sound absorption properties, ROCKWOOL CURTAINROCK® and ROXUL SAFE™ are frequently specified for a variety of commercial curtain wall applications.

CURTAINROCK® Acoustical Performance

ASTM C 423 CO-EFFICIENTS AT FREQUENCIES							
Thickness	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	NRC
2"	0.26	0.68	1.12	1.10	1.03	1.04	1.00
3"	0.63	0.95	1.14	1.01	1.03	1.04	1.05
4"	1.03	1.07	1.12	1.04	1.07	1.08	1.10

CURTAINROCK® 40 – Acoustical Performance

ASTM C 423 CO-EFFICIENTS AT FREQUENCIES							
Thickness	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	NRC
2"	0.26	0.71	1.14	1.09	1.04	1.03	1.00
3"	0.65	0.94	1.13	1.07	1.06	1.04	1.10
4"	0.92	1.04	1.07	1.07	1.07	1.08	1.05

ROXUL SAFE™ – Acoustical Performance

ASTM C 423 CO-EFFICIENTS AT FREQUENCIES							
Thickness	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	NRC
2"	0.26	0.68	1.12	1.10	1.03	1.04	1.00
3"	0.63	0.95	1.14	1.01	1.03	1.04	1.05
4"	1.03	1.07	1.12	1.04	1.07	1.08	1.10

CURTAINROCK® 80 – Acoustical Performance

ASTM C 423 CO-EFFICIENTS AT FREQUENCIES							
Thickness	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	NRC
2"	0.39	0.84	1.08	1.01	1.02	1.01	1.00
3"	0.68	0.92	1.08	1.03	1.03	1.03	1.10
4"	1.00	0.95	1.06	1.04	1.06	1.08	1.05

Excellent Moisture Management Features



This unique vapor permeable quality of ROCKWOOL's curtain wall insulation allows for an increased potential for drying without trapping water in the wall assembly.

ROCKWOOL CURTAINROCK® and ROXUL SAFE™ are inorganic and therefore do not rot, corrode or promote fungi, mold and bacterial growth.

Both CURTAINROCK® and ROXUL SAFE™ are water repellent, yet vapor permeable (30-40 perms). These products resist the infiltration of water into the insulation layer and facilitate the drainage of water out of the system to enhance the drying potential of curtain wall assemblies.

Moisture Resistance

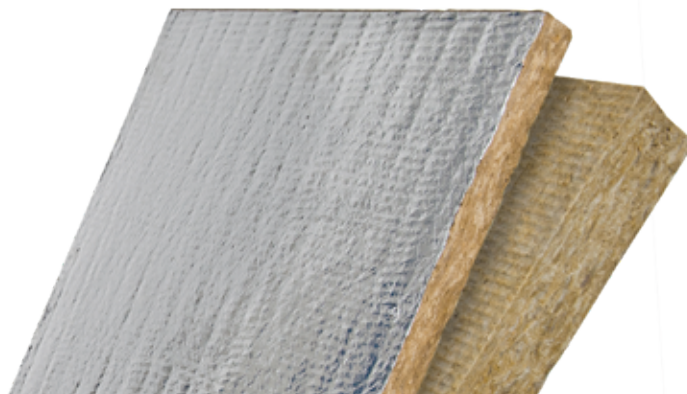
Product	Specification	Test	Result
CURTAINROCK®, CURTAINROCK® 40	ASTM C 1104	Moisture Sorption	0.01%
ROXUL SAFE™, CURTAINROCK® 80	ASTM C 1104	Moisture Sorption	0.04%

Corrosive Resistance

Product	Specification	Test	Result
CURTAINROCK® CURTAINROCK® 40/80	ASTM C 665	Corrosiveness to Steel	Pass
CURTAINROCK® CURTAINROCK® 40/80	ASTM C 795	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

Facing Options To Meet Any Application Requirement

ROCKWOOL CURTAINROCK® products are available with or without reinforced foil facing (RFF). For example, CURTAINROCK® 80 RFF is often used in fire rated assemblies, for aesthetics behind glass, and as a vapor barrier. CURTAINROCK® 40 and CURTAINROCK® 80 are approved for use as a component in UL/ULC/Intertek classified perimeter fire containment systems.



Carnegie 57, also known as One57, is a 75-story skyscraper in New York City. Due for completion in 2013, it will be the fourth tallest building in the city. CURTAINROCK® 80 RFF is specified throughout the curtain wall system of this architectural jewel.

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 more than 11,000 employees in 39 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 and offshore.

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