



ROCKBOARD® 40/60/80

Premium Multipurpose Board Insulation
for Acoustic/Thermal Applications

ROXUL ROCKBOARD® Provides Superior Sound Absorption

Acoustic Performance

ROXUL® stone wool insulation products have a propensity for high acoustical performance. There are two physical characteristics that support this result. One is the multi-directional fiber orientation. The other is a factor of their density.

The ROCKBOARD® family of products is available in various densities to support different applications. ROCKBOARD 60 in particular has exceptional energy absorbing characteristics and is effective at reducing sound transmission across a wide range of frequencies.

ROCKBOARD's excellent sound-dampening characteristics make it ideal for buffering the hum from noisy mechanical rooms.



ROCKBOARD® 40 – Acoustical Performance

ASTM C 423 CO-EFFICIENTS AT FREQUENCIES							
Thickness	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	NRC
1.0"	0.07	0.32	0.77	1.04	1.05	1.05	0.80
1.5"	0.18	0.48	0.96	1.09	1.05	1.05	0.90
2.0"	0.26	0.68	1.12	1.10	1.03	1.04	1.00
3.0"	0.63	0.95	1.14	1.01	1.03	1.04	1.05
4.0"	1.03	1.07	1.12	1.04	1.07	1.08	1.10

ROCKBOARD® 60 – Acoustical Performance

ASTM C 423 CO-EFFICIENTS AT FREQUENCIES							
Thickness	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	NRC
1.0"	0.08	0.33	0.78	1.03	1.02	1.04	0.80
1.5"	0.17	0.62	1.00	1.05	1.01	1.01	0.90
2.0"	0.32	0.81	1.06	1.02	0.99	1.04	0.95
3.0"	0.78	0.89	1.04	0.98	1.01	1.02	1.00

ROCKBOARD® 80 – Acoustical Performance

ASTM C 423 CO-EFFICIENTS AT FREQUENCIES							
Thickness	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	NRC
1.0"	0.11	0.31	0.82	1.01	1.02	1.01	0.80
1.5"	0.21	0.64	0.92	1.00	0.95	1.01	0.90
2.0"	0.43	0.78	0.90	0.97	0.97	1.00	0.90
3.0"	0.75	0.82	0.89	0.94	1.00	1.00	0.90

ROCKBOARD® Products and Applications

Product	Density	Thicknesses	W X L	Common Applications
ROCKBOARD® 40	4 lb/ft ³ , (64kg/m ³)	1" - 4" (½" increments), 5"	24" x 48"	Mechanical/Utility rooms/Parking garages
ROCKBOARD® 60	6 lb/ft ³ , (96kg/m ³)	1" - 4" (½" increments), 5", 6"	24" x 48"	Theaters, Recording studios, Metal roofs requiring snow load
ROCKBOARD® 80	8 lb/ft ³ , (128kg/m ³)	1" - 4" (½" increments), 5"	24" x 48"	Surfaces requiring wind load (e.g. substrate for stucco walls)

ROCKBOARD's superior acoustic properties make it ideal for theatres, recording studios and other sound-damping applications.



Thermal Integrity & Moisture Control

Thermal Integrity

Stone wool is naturally denser than fiberglass, and will maintain its dimensional integrity under all conditions. It will not slump, shrink, expand with temperature fluctuations or compress under light loads as competitive insulations are prone to do.

Thermal Resistance

ROCKBOARD® 40/80 ASTM C 518 [C 177]	R-value/inch @ 75 °F RSI value/25.4 mm @ 24 °C	4.1 hr.ft².F/BTU 0.72 m²K/W
ROCKBOARD® 60 ASTM C 518 [C 177]	R-value/inch @ 75 °F RSI value/25.4 mm @ 24 °C	4.2 hr.ft².F/BTU 0.72 m²K/W



ROCKBOARD® is ideal for maintaining thermal integrity and moisture control in high temperature settings.

Water Repellent Insulation – Will not Rot , Corrode, Promote Mold or Bacterial Growth

Moisture can cause a number of structural and/or aesthetic problems within commercial buildings. As an integral part of any building design, proper ventilation is necessary to allow any built-up condensation to drain out of the system. ROCKBOARD® stone wool insulation is water repellent, helping to deflect moisture away from the surface, alleviating potential issues.

ROCKBOARD insulation is inorganic, and will not rot, corrode, or promote fungi or bacteria growth, which means the potential for related environmental health issues are also mitigated as a result.



Moisture Resistance

ROCKBOARD® 40,60,80 ASTM C 1104	Moisture Sorption	<0.08%
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Fungi Resistance

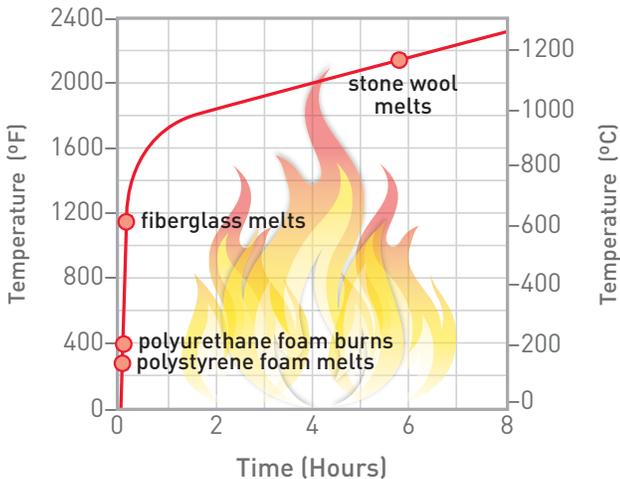
ROCKBOARD® 40/60/80 ASTM C 1338	Determination of Fungi Resistance	Passed
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Fire Resistant Insulation – Protecting both the Building and the Occupants

Fire Resistance

ROCKBOARD® products are non-combustible and meet ASTM E 136 and CAN4 S114 standards. ROXUL® stone wool has an extremely high melting point of 2150 °F (1177 °C) compared to fiberglass at ~1112 °F (~600 °C), thermoplastic insulation at 160-600 °F (~70-315 °C). ROCKBOARD products do not produce toxic smoke in the event of a fire and are an excellent barrier against the spread of flames to help protect occupants and reduce property damage.

Temperature Development in a Standard Fire (ASTM E119)



In an application where elevated temperatures are a concern, stone wool will provide greater protection than fiberglass. The maximum service temperature of stone wool insulation when tested to ASTM C 411 is 1200 °F (650 °C), compared to fiberglass which is limited to a maximum service temperature of 450 °F (232 °C).

Maximum Service Temperature

ROCKBOARD® 40/60/80	ASTM C 411	Hot Surface Performance	In Compliance with ASTM C 612 @ 1200 °F (650 °C)
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Fire Performance

ROCKBOARD® 40/60/80 ASTM E 136	Behaviour of Materials at 1328 °F (750 °C)	Non-Combustible
ROCKBOARD® 40/60/80 CAN4 S114	Test for Non- Combustibility	Non-Combustible
ROCKBOARD® 40 ASTM E 84(UL 723)	Surface Burning Characteristics	Flame Spread = 5 Smoke Developed = 5
ROCKBOARD® 60/80 ASTM E 84(UL 723)	Surface Burning Characteristics	Flame Spread = 5 Smoke Developed = 10
ROCKBOARD® 40/60/80 CAN/ULC S102	Surface Burning Characteristics	Flame Spread = 5 Smoke Developed = 10



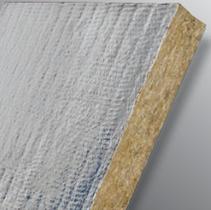
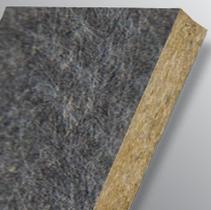
ROCKBOARD® adds an extra degree of fire resistance around utility rooms.

FACING – Moisture Control, Sound Absorption, and Energy Savings

Facing can help to obtain optimum thermal and energy efficiency, structural integrity, and enhanced interior aesthetics with minimal cost impact on the overall project. ROCKBOARD® can be surfaced with a variety of facings to deliver the desired result.

Please contact ROXUL® for our complete facing offering and technical information related to materials, permeability, light reflectance, and fire performance.



	Facer	Performance	Typical Applications
	Aluminum Foil with fiberglass reinforcement	ASTM E96 Permeance (WVTR) 0.02% (grains/hr.ft ² .in Hg) ASTM E84/UL 723 Flame Spread = 20 Smoke Development = 35	Aesthetics Vapor Barrier with Foil Tape for Seams
	White Polypropylene with fiberglass reinforcement	ASTM C 523 – 85% Light Reflectivity (Energy Saving – Light Installation & Usage up to 20%)* ASTM E96 Permeance (WVTR) 0.02% (grains/hr.ft ² .in Hg) Flame Spread = 25 Smoke Development = 50	Mechanical Rooms Underground Walkways Aesthetics
	White Pin Perforated Polypropylene with fiberglass reinforcement	ASTM C 523 – 85% Light Reflectivity (Energy Saving – Light Installation & Usage up to 20%)* Permeance (WVTR) >10 perm (grains/hr.ft ² .in Hg) Flame Spread = 25 Smoke Development = 50	Mechanical Rooms Underground Walkways Aesthetics
	Black Mat with non-woven fiberglass	Aesthetics Permeance (WVTR) >10 perm ASTM E84/UL 723 Flame Spread = 25 Smoke Development = 35	Theatres/Recording Studio Walls Shadowing behind other Surfaces/Facades

*CASE STUDY – Lamtec White Facings Reduce Lighting Investment Cost and Annual Electricity Costs (Lamtec® Corp.)
Light Reflectance Determined in Testing by Atlas Services Group on May 3rd, 2011.

Compressive Strength

	@10%	@25%
ROCKBOARD® 40 ASTM C 165	90 psf (4.3 kPa)	226 psf (10.8 kPa)
ROCKBOARD® 60 ASTM C 165	196 psf (9.4 kPa)	547 psf (26.2 kPa)
ROCKBOARD® 80 ASTM C 165	353 psf (16.9 kPa)	794 psf (38 kPa)

Dimensional Stability

ROCKBOARD® 40 ASTM C 356	Linear Shrinkage	0.47 % @ 1200 °F (650 °C)
ROCKBOARD® 60 ASTM C 356	Linear Shrinkage	1.14 % @ 1200 °F (650 °C)
ROCKBOARD® 80 ASTM C 356	Linear Shrinkage	0.41 % @ 1200 °F (650 °C)

Compliance and Performance

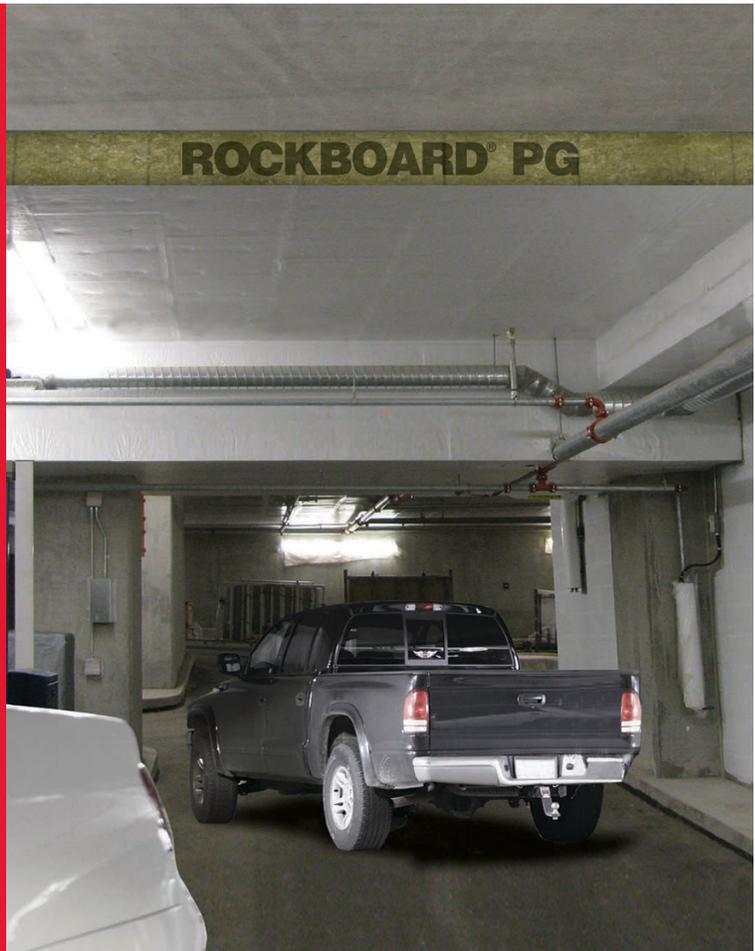
ROCKBOARD® 40 ASTM C 612	Mineral Fiber Block and Board Thermal Insulation	Type IVA, Complies
ROCKBOARD® 60/80 ASTM C 612	Mineral Fiber Block and Board Thermal Insulation	Type IVB, Complies

*ROCKBOARD® PG is quieter, warmer,
brighter and more cost effective!*

ROCKBOARD® PG

Parking Garage Applications

ROCKBOARD® PG insulation is designed specifically for parking garage applications. ROCKBOARD PG's reflective white facing can help reduce lighting investment costs (up to 20 per cent) while increasing the general aesthetics of the parking garage. For more information on ROCKBOARD PG, contact your ROXUL Sales Representative.*



*CASE STUDY - Lamtec White Facings Reduce Lighting Investment Cost and Annual Electricity Costs (Lamtec® Corp.)
Light Reflectance Determined in Testing by Atlas Services Group on May 3rd, 2011.



A Global Leader

ROXUL Inc. is part of ROCKWOOL International, the largest producer of stone wool insulation, which is made from natural basalt rock and recycled material.

ROCKWOOL International was founded in 1909 and today operates worldwide with more than 8,500 employees, with 27 factories across three continents.

ROCKWOOL has more than 40 years experience in developing and manufacturing advanced wall system products. For 25 years, ROXUL has been serving the North American market.

In addition to high temperature insulation for industrial applications, ROXUL also manufactures a range of other premium insulation products for multiple applications.

ROXUL is the Better Insulation

ROXUL ROCKBOARD® is an innovative insulation offering a world of green features. When ROXUL is the specified insulation, green building developers can earn a variety of LEED® (Leadership in Energy and Environmental Design) points across four key categories toward sustainable development.



Environmentally Sustainable

Our stone wool production process utilizes some of the most advanced technology available. The ROXUL facility is designed to capture and recycle rainwater, reduce energy consumption, and create zero waste to landfill by recycling raw materials back into the production process.

ROXUL insulations are created using naturally occurring, inorganic raw materials and materials with a high-recycled content. Stone wool insulation is non-combustible and achieves its thermal performance without the use of blowing agents. The products do not off-gas and are fully recyclable, therefore contributing to a sustainable environment.

ROXUL is pleased to have third-party certification of our products' recycled content for our Milton facility completed by **ICC -ES SAVE™**. All ROXUL products produced in the Milton facility contain a minimum of 40% recycled content. ROXUL products produced in our Grand Forks facility are currently awaiting ICC-ES Save™ certification.

ROXUL demonstrates its commitment to the environment through eco-friendly insulation products and green manufacturing processes

For further details contact your ROXUL sales representative. Please visit www.roxul.com for the latest information.

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