Trademark SOUNDPROOFING

Roxul Insulation

Acoustical Fire Batts

AFB Acoustic Testing
STC value doesn't take into account lower frequency sounds (LFS), which can negatively affect the vibration between walls and the peace and quiet in a room. Due to its higher density, ROXUL AFB has been tested and proven for its dampening effectiveness against LFS.

ROXUL AFB

ROXUL AFB is a lightweight, semi-rigid batt insulation specifically designed for steel stud interior wall and floor applications.

This stone wool-based insulation is made from natural stone and recycled content. It's a sustainable product that provides superior sound absorbency and fire protection for overall occupant comfort and safety. That's why AFB is quickly becoming the insulation of choice for today's green builders in commercial and industrial construction.

Sound Control

Room to room or floor to floor, when ROXUL AFB is specified for interior wall or floor assemblies, better overall sound control and fire protection are achieved. Compared to other types of insulation, the stone wool content of AFB provides increased density that effectively reduces airflow and essentially, sound transmissions. Greater noise or sound control is further achieved when thicker AFB and gypsum board are used together. AFB thickness ranges from 1.0” (25 mm) to 6” (152 mm).

Testing demonstrates that ROXUL AFB's inherent higher density and manufacturing process delivers dramatically better airflow resistivity compared to glass wool. Higher air flow resistivity means better sound attenuation

In commercial applications, much of the sound or noise to be controlled is produced in low frequency or bass ranges. This noise includes conversation, projection/video equipment, and ventilation systems. In the lower 1/3 octave bands, tests have shown that ROXUL AFB outperformed glass wool insulation, providing more low frequency absorption when comparing acoustical testing at low frequencies (see chart).

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Density and Airflow Resistivity for samples of Absorptive Material					
		Density (kg/m3)		*Airflow Resistivity (mks rayls/ml)*	
		Average value	Standard Deviation	Average Value	Standard Deviation
Glass Fiber	3 1/2" (89 mm) batt	12.2	0.4	4,800	400
Glass Fiber	2 1/2" (65 mm) batt	11.7	1.0	3,600	200
ROXUL AFB	3" (75 mm) batt	44.2	1.7	16,600	900
ROXUL AFB	1 1/2" (40 mm) batt	51.9	2.2	15,000	500

Random Incidence Sound Absorption Coefficients, in 1/3 Octave Band								
		1/3 Octave Band Center Frequency (Hz)						
		65	80	100	125	160	200	250
Glass Fiber Sample 1	3 1/2"	0.15	0.18	0.21	0.25	0.32	0.43	0.54
Glass Fiber Sample 2	3 1/2"	0.15	0.17	0.19	0.22	0.28	0.37	0.48
ROXUL AFB Sample 1	3"	0.18	0.22	0.28	0.33	0.40	0.50	0.62
ROXUL AFB Sample 2	3"	0.18	0.23	0.29	0.24	0.41	0.52	0.65
Glass Fiber Sample Average	3"	0.15	0.18	0.20	0.20	0.30	0.40	0.50
ROXUL AFB Sample Average	3"	0.18	0.23	0.29	0.34	0.41	0.51	0.64

Acoustical Performance		
ASTM E90	Airborne Sound Transmission Loss	Tested
ASTM E413	Rating Sound Insulation	Tested
ASTM C423	Sound Absorption Coefficients	Tested
ASTM E 1050	Impedance and Absorption of Acoustical Materials	Tested

ASTM C423							
Coefficients at Frequencies							
Thickness	125 Hz	250 Hz	500 Hz	1000 Hz	20000 Hz	4000 Hz	NRC
1.0"	0.14	0.25	0.65	0.90	1.01	1.01	0.70
1.5"	0.18	0.44	0.94	1.04	1.002	1.03	0.85
2.0"	0.28	0.60	1.09	1.09	1.05	1.07	0.95
3.0"	0.52	0.96	1.18	1.07	1.05	1.05	1.05
4.0"	0.86	1.11	1.20	1.07	1.08	1.07	1.10

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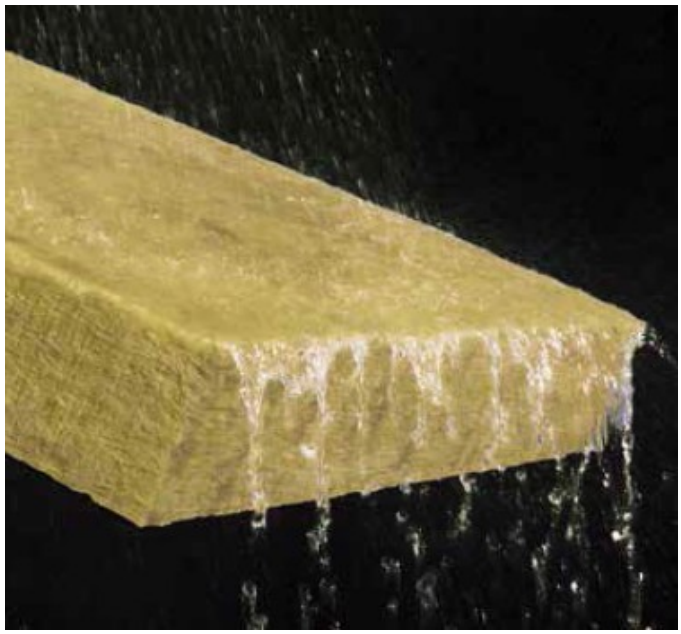

Features and Benefits that Set AFB apart

Fire Resistant

ROXUL AFB's combination of stone wool and recycled content makes this insulation fire resistant. This non-combustible product does not develop smoke or promote flame spread when exposed to fire, making AFB a critical line of defense in fire protection. In fact, studies have proven that stone or mineral wool insulation's provide a 54% increase in overall fire resistance rating compared to non-insulated assemblies.

Water Repellent

ROXUL AFB will not absorb water or hold moisture, thereby maintaining its shape within the wall cavity delivery for maximum sound and fire performance. AFB will not corrode and does not promote fungi growth.

Fire Performance		
CAN4 S114	Test for Non-Combustibilty	Non-Combustible
ASTM E 136	Behavior of Materials at 750° C (1382° F)	Non-Combustible
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
CAN/ULC S129	Smolder Resistance	0.09%

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Sag-Free, Tight Fit

The higher density of AFB provides superior sag resistance and fit. Once installed, AFB holds its shape without sagging or slumping in the wall cavity over time to consistently provide continuous fire protection and sound control.

Fast, Easy Installation

Working with ROXUL insulation is a breeze. Simply cut with a serrated knife for quick and efficient installation between studs, around electrical boxes, pipes, wiring, duct work and between studs and joists tha are less than a standard width.

Corrosive Resistance		
ASTM C 665	Corrosiveness to Steel	Pass
ASTM C 795	Stainless Stell stress Corrosion Specification as per Test Methods C871 And C692; U.S. Nuclear Regulatory commission Reg Guide #1.36:U.S. Military Specifications MIL+24244 (all versions including B and C)	Conforms
Air Erosion		
UL 181	Maximum Air Velocity	1000 fpm (5.08 m/s)

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Compliance and Performance

CAN/ULC-S702-07	Miner Fiber Thermal Insulation for Buildings	Type 1, Complies
ASTM C 665	Mineral Fiber Blanket Thermal Insulation	Type 1, Complies
ASTM C 553	Mineral Fiber Blanket Thermal Insulation	Complies
MEA Approval	New York Cirt Approval	338-97-M
City of Los Angeles approval		RR25444
ULC Design Nos.	U311, W406, W408, W419, W423, W440, W441, W4442, W508, W600, Z500	
UL Design Nos.	U305, U311, U317, U411, U412, U448, U465, V417, V418, V419	

Thickness
Product thickness is available in 1” to 3.5” with 1/2” increments as well as 4”, 5” and 6” offerings.

Dimensions
16.25” (width) x48” (length)
412.75 mm (width)x 1219 mm (length)
24.25” (width) x 48” (length)
615.95 mm (width) x 1219 mm (length)

Density	
2” thickness	2.8 lbs/ft³ 45 kg/m³

Better Acoustic Comfort

The higher density of stone wool delivers dramatically better airflow resistivity compared to fiberglass. Higher resistivity translates into better sound attenuation and better overall acoustic comfort for building occupants.

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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 more than 20 years, ROXUL has been serving the North American market.

In addition to acoustical fire batt insulation for residential and commercial construction, ROXUL also manufactures a range of other premium insulation products for multiple applications.

ROXUL is the Better Insulation

ROXUL AFB 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 insulation is 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 ROSUL sales representative. Please visit www.roxul.com for the latest information.

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Fire Resistant | Water Repellent | Sound Absorbent | Saves Energy | Made from Stone

ROXUL The Better Insulation

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