



A high-density, mineral wool insulation board for flat roofing applications

FEATURES

- Fire resistant
- Dimensionally stable
- High impact resistance
- Low moisture sorption
- Non-corrosive
- Stable R-value
- Excellent acoustical properties
- Made from natural & recycled materials

BENEFITS

- Non-combustible
- Will not warp or cup
- Can contribute to earning LEED® points

DESCRIPTION:

Roxul MonoBoard is a high-density, mineral wool commercial insulation board for low slope roof applications. It is used as a coverboard to provide a suitable substrate for membranes as well as additional thermal resistance. Additionally, this non-combustible insulation is highly durable and environmentally sustainable.

BASIC USES:

Designed for use as a commercial and industrial low-slope roof insulation cover board, MonoBoard is suitable for both new building and re-roofing applications as well as for use in tapered systems and fabrication.

SIZES:

It is available as a 1.04" thick board to provide a R4/in at a mean 75°F, which increases at colder temperatures and decreases slightly at warmer temperatures. This can help reduce the thickness of the thermal insulation used in the rest of the roof system.

LIMITATIONS:

GENERAL APPLICATION DATA:

PHYSICAL PROPERTIES:

Performance Compliance	Test Standard
Standard Specification for Mineral Fiber Roof Insulation Boards	ASTM C726
Approval Standard for Single Ply, Polymer Modified Bitumen Sheet, Built-Up Roof and Liquid Applied Roof Assemblies for use in Class 1 and Noncombustible Roof Deck Construction	FM 4470
NCC (Non Combustible Core) Rated Roof Insulation	FM 4470
Reaction to Fire	
Flame spread index = 0 ; Smoke developed index = 0	ASTM E84 (UL 723)
Flame spread index = 0 ; Smoke developed index = 0	CAN/ULC S102
Determination of Non Combustibility of Building Materials - Non Combustible	CAN/ULC S114
Standard Method of Fire Tests for Determining Heat Release Rate of Roofing Assemblies with Combustible Above Deck Roofing Components - Class 1	NFPA 276
Fire Tests of Roof Coverings - Class A	CAN/ULC S107-03
Fire Spread under Roof Deck Assemblies - See ULC Directory	CAN/ULC S126-06

Roxul MonoBoard®

PHYSICAL PROPERTIES: (continued)

Standard Test Methods for Fire Tests of Roof Coverings - Class A UL 790 (ASTM E108)
Fire Tests of Building Construction and Materials - See UL Directory UL 263 (ASTM E119)

Density

Actual Density - 12.5 lb/ft³ (200 kg/m³) ASTM C303

Dimensional Stability

Linear Shrinkage - 1.1% @ 1200°F (650°C) ASTM C356

Linear Change 7 days @ 40°F (-40°C), ambient RH - 0.0% ASTM D2126

Linear Change 7 days @ 200°F (93°C), ambient RH - 0.1%

Linear Change 7 days @ 158°F (70°C), 97% RH - 0.1%

Hail Performance

Test Standard for Susceptibility to Hail Damage - Class 1 - SH (Severe Hail) FM 4470

Impact Resistance by Impacting with Freezer Ice Balls - Class 4 FM 4473

Impact Resistance of Prepared Roof Covering Materials - Class 4 UL 2218

Thermal Resistance

Mean Temperature	R-Value	RSI Value	ASTM C518 (C177)
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75°F (24°C)	4.0 hr.ft ² .F/Btu	0.70 m ² K/W
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25°F (-4°C)	4.4 hr.ft ² .F/Btu	0.77 m ² K/W
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40°F (4°C)	4.3 hr.ft ² .F/Btu	0.75 m ² K/W
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110°F (43°C)	3.7 hr.ft ² .F/Btu	0.66 m ² K/W
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Reaction to Moisture

Moisture Sorption - 0.29% ASTM C1104

Water Absorption - <1.0% ASTM C209

Water Vapor Transmission, Desiccant Method - 2360 ng/Pa.s.m² (41 perm) ASTM E96

Compressive Strength

11psi (75kPa) @ 10% compression ASTC C165

28psf (190kPa) @ 25% compression

Corrosion Resistance

Stress Corrosion Cracking Tendency of Austenitic Stainless ASTM C795

Corrosion Resistance Steel - Passed

Corrosion of Steel - Passed ASTM C665

Thickness

Nominal - 1" (25.4mm) Actual - 1.04" (26.4mm)

Dimensions

48"x48" (1219mm x 1219mm)

Acoustical Performance

Thickness 125 Hz 250 Hz 500 Hz 1000 Hz 2000 Hz 4000 Hz NRC ASTM C423

1"	0.13	0.49	0.85	0.89	0.89	0.97	0.8
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Contact ROXUL for STC rated assemblies ASTM E90



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