

General Product Information:

ROXUL[®] products are mineral wool fiber insulations made from basalt rock and slag. This combination results in a non-combustible product with a melting point of approximately 2150°F (1177°C), which gives it excellent fire resistance properties. ROXUL mineral wool is a water repellent yet vapor permeable material.

Description & Common Applications:

ROXUL TopRock[®] DD is a rigid mineral wool insulation board with a rigid upper surface for durability and enhanced strength. It is intended for commercial and industrial roof insulation applications and is suitable for both new building and re-roofing applications. TopRock[®] DD is intended for use with mechanically fastened or ballasted traditional and single ply membranes.

Compliance and Performance:

| | | |
|------------------------|---|----------|
| ASTM C 726 | Standard Specification for Mineral Fiber Roof Insulation Boards | Complies |
| FM Approvals 4450/4470 | Approval Standard for Single-Ply, Polymer-Modified Bitumen Sheet, Built-Up Roof (BUR) and Liquid Applied Roof Assemblies for use in Class 1 and Noncombustible Roof Deck Construction | Complies |
| FM Approvals 4470 | NCC – (Noncombustible Core) Rated Roof Insulation | Complies |

Fire Performance:

| | | |
|--------------------|---|---|
| NFPA 276 | Standard Method of Fire Tests for Determining the Heat Release Rate of Roofing Assemblies with Combustible Above-Deck Roofing Components | Class 1 |
| CAN4-S114 | Non-Combustibility in Building Materials | Non-Combustible |
| CAN/ULC-S107-03 | Fire Tests of Roof Coverings | Class A |
| CAN/ULC-S126-06 | Fire Spread Under Roof Deck Assemblies | Construction C7, C18, C28, C38 |
| ASTM E 84 (UL 723) | Surface Burning Characteristics | Flame Spread = 0 Smoke Developed = 0 |
| CAN/ULC S102 | Surface Burning Characteristics | Flame Spread = 0 Smoke Developed = 5 |
| UL 790 (ASTM E108) | Standard Test Methods for Fire Tests of Roof Coverings See UL Roofing and Materials Directory for Assembly Details | Class A |
| UL 263 (ASTM E119) | Fire Tests of Building Construction and Materials See UL Fire Resistance Directory at the following link for assembly details: http://database.ul.com/cgi-bin/XYV/template/LISCANADA/1FRAME/index.html P004, P213, P214, P225, P228, P230, P237, P238, P242, P245, P250, P254, P259, P404, P409, P501, P502, P504, P506, P508, P510, P512, P514, P701, P708, P710, P711, P718, P729, P732, P734, P735, P737, P740, P801, P810, P815, P828, P904, P909, P912, P915. | |

Dimensional Stability:

| | | |
|-------------|--|--------|
| ASTM C 356 | Linear Shrinkage 24 Hrs. @ 1200°F (650°C) | 0.71 % |
| ASTM D 2126 | Linear change 7 days @ 40°F (-40°C) ambient RH | 0.1 % |
| | Linear change 7 days @ 200°F (93°C) ambient RH | 0.1 % |
| | Linear change 7 days @ 158°F (70°C) 97% RH | 0.0 % |

Hail Performance:

| | | |
|---------|---|----------------------------|
| FM 4470 | Test Standard for Susceptibility to Hail Damage | Class 1 – SH (Severe Hail) |
| FM 4473 | Impact Resistance by Impacting with Freezer Ice Balls | Class 4 |
| UL 2218 | Impact Resistance of Prepared Roof Covering Materials | Class 4 |

Moisture Resistance:

| | | |
|-------------|--|---------------------------------------|
| ASTM C 1104 | Water Vapor Sorption | 0.15% |
| ASTM E 96 | Water Vapor Transmission, Desiccant Method | 2330 ng/Pa.s.m ² (41 Perm) |
| ASTM C 209 | Water Absorption | <1.0% |

Thermal Resistance:

| | | | |
|--------------------|--------------------|------------------------------------|------------------------------|
| ASTM C 518 (C 177) | Temperature | R-value/inch | RSI value/25.4 mm |
| | 25°F (-4°C) | 4.3 hr.ft ² .F/Btu | 0.74 m ² K/W |
| | 40°F (4°C) | 4.2 hr.ft ² .F/Btu | 0.72 m ² K/W |
| | 75°F (24°C) | 3.8 hr.ft².F/Btu | 0.68 m²K/W |
| | 110°F (43°C) | 3.6 hr.ft ² .F/Btu | 0.64 m ² K/W |

Corrosive Resistance:

| | | |
|----------------|---|---------------|
| ASTM C 665 | Corrosiveness to Steel | Non-corrosive |
| 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) | Non-corrosive |

Acoustical Performance:

| ASTM C423 | | CO-EFFICIENTS AT FREQUENCIES | | | | | |
|-----------|--------|------------------------------|--------|---------|---------|---------|------|
| Thickness | 125 Hz | 250 Hz | 500 Hz | 1000 Hz | 2000 Hz | 4000 Hz | NRC |
| 2.0" | 0.50 | 0.71 | 0.85 | 0.90 | 0.96 | 1.01 | 0.85 |

STC Values: Contact Roxul for further details

Compressive Strength:

| | | | |
|-------------|--------|--------|-----------|
| ASTM C 165 | at 10% | 20 psi | (140 kPa) |
| (Top Layer) | at 25% | 37 psi | (250 kPa) |

| | | | |
|--------------|--------|--------|-----------|
| Entire Board | at 10% | 11 psi | (75 kPa) |
| | at 25% | 15 psi | (105 kPa) |

Point Load @ 5mm compression 30 psi (205 kPa)

Density:

| | | | |
|----------------------------------|---------------------------|-----------------------|--|
| ASTM C 612-09 – Actual | | | |
| Top Layer | 13.75 lbs/ft ³ | 220 kg/m ³ | |
| Bottom Layer | 10.0 lbs/ft ³ | 160 kg/m ³ | |
| Formed as a monolithic structure | | | |

Dimensions:

48" (width) x 48" (length)
1219 mm (width) x 1219 mm (length)

Thickness:

Product thickness is available in 2" to 6" with 1/2" increments

For additional sizes, please contact Roxul at 1-800-265-6878



Key Application Qualifiers:

- Does not require cover board
- Will not promote blistering
- Does not off gas
- Will not warp or cup
- Dimensionally stable
- High impact resistance
- Low moisture sorption
- Non-corrosive
- Fire resistant
- Made from natural & recycled materials

Limitations:

This product should not be exposed to weather during shipment, storage or installation. At the completion of a day's work, all exposed edges should be temporarily sealed by lapping roof membrane over them. The products are not intended for use as a structural roof deck or for use under heavy traffic areas.

On-Site Storage:

The factory packaging is intended for the protection of the insulation boards during transit and is not intended for job site protection against the elements. When product is stored outdoors, the plastic shroud must be slit and the insulation protected by a waterproof, breathable covering such as a tarpaulin. Insulation must be stored minimum 4 in. (102mm) above ground and kept on a solid flat surface.

Other ROXUL Products:

Please consult ROXUL for all your insulation needs. We have an extensive range of products for all applications from pipe insulation to commercial products to residential batts. ROXUL invites all inquiries and will act promptly to service all of your requirements.

***Provisions for lot testing may be required, consult manufacturer.

Note: As ROXUL Inc. has no control over installation design and workmanship, accessory materials or application conditions, ROXUL Inc. does not warranty the performance or results of any installation containing ROXUL Inc's. products. ROXUL Inc's. overall liability and the remedies available are limited by the general terms and conditions of sale. This warranty is in lieu of all other warranties and conditions expressed or implied, including the warranties of merchantability and fitness for a particular purpose.

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Revised: March 13, 2012
Supersedes: March 06, 2012