

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 Mold, Rot or Corrode

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

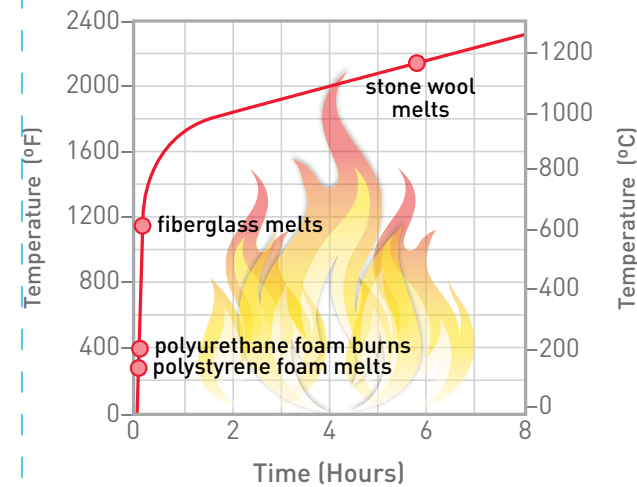
RockBoard® 40/60/80 ASTM C 1338	Determination of Fungi Resistance	Passed
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Fire Resistant Insulation – Protecting both the Building and the Occupants

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.