

**General Product Information:**

ROXUL® products are mineral wool fibre 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 vapour permeable material.

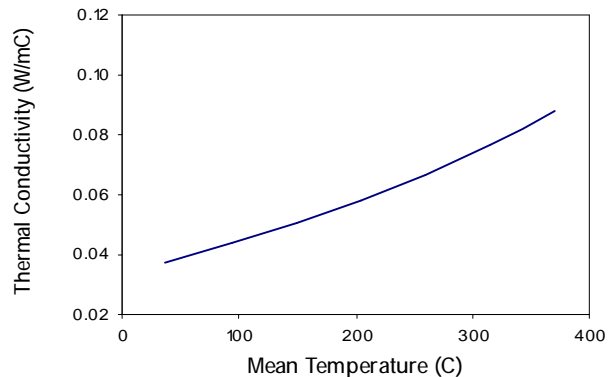
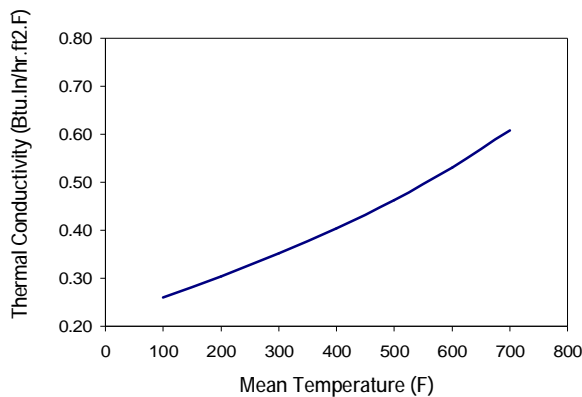
**Description & Common Applications:**

These rigid mandrel wound pipe sections are strong, preformed mineral wool insulation with excellent thermal performance. SturdiRock® is ideal for steam and process pipe systems operating at temperatures up to 1400°F (760°C), where energy conservation, personnel protection and fire control are concerns. SturdiRock® provides high water-repellent characteristics, making it suitable for application in conditions where moisture can penetrate the insulation system. The added density of SturdiRock® offers superior durability compared to other mineral wool products.

**Compliance and Performance:**

ASTM C 547	Standard Specification for Mineral Fibre Preformed Pipe Insulation	Type I, II, IV, V Complies Grade A
CAN4 S114 ASTM E136 CAN/ULC S102	Test For Non-Combustibility Behaviour Of Materials at 750 C (1382 F) Surface Burning Characteristics	Non-Combustible Non-Combustible Flame Spread = Passed Smoke Developed = Passed Flame Spread = 0 Smoke Developed = 5
ASTM E 84(UL 723)	Surface Burning Characteristics	In Compliance with ASTM C547 @ 1400°F (760°C)
ASTM C 411	Hot Surface Performance	In Compliance with ASTM C547 @ 1400°F (760°C)
ASTM C 447	Maximum Surface Performance	Conforms
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)	
ASTM C 356 ASTM C 1104 ASTM C 585 ASTM C800	Linear Shrinkage Moisture Sorption Inner & Outer Diameters for Nominal Pipe Sizes Wicking	< 0.60% @ 1200°F (650°C) < 0.1% Complies Zero

**Thermal Conductivity (k):**





**Compressive Strength:**

ASTM C 165 at 10% 1102 psf (52.8 kPa)  
 at 25% 1906 psf (91.3 kPa)

**Density:**

11.25 lbs/ft<sup>3</sup> 180 kg/m<sup>3</sup>

**Acoustical Performance:**

**ASTM E 1222- Standard Test Method For Laboratory Measurement of the Insertion Loss of Pipe Lagging Systems.**

Product	Jacket	Frequency (Hz)				
		800	1000	2000	4000	5000
		Insertion Loss (dB)				
Roxul SturdiRock 12 x 1.5	Aluminum	0	5	8	18	24
	Stainless Steel	1	5	14	21	28
	PVC	0	2	9	21	28
Roxul SturdiRock 12 x 2	Aluminum	0	5	10	19	26
	Stainless Steel	1	10	16	24	31
	PVC	0	1	12	23	30
Roxul SturdiRock 12 x 2.5	Aluminum	1	7	10	25	30
	Stainless Steel	1	11	14	26	33
	PVC	0	3	8	25	31
Roxul SturdiRock 12 x 3	Aluminum	0	3	14	23	30
	Stainless Steel	1	6	17	27	33
	PVC	0	3	10	26	29
Roxul SturdiRock 12 x 4	Aluminum	3	14	13	25	31
	Stainless Steel	5	14	16	28	34
	PVC	0	8	16	26	31

**Thermal Performance:**

Roxul can perform an individual computer analysis for your specific needs in accordance with the NAIMA 3E Plus software program.

**Installation:**

- Pipe sections are water repellent, but cartons are not designed for outside storage. SturdiRock® can be used outdoors but will require the use of a suitable weatherproofing system.
- Cuts easily with a serrated knife.
- Stagger half-sections and/or butt the one piece sections firmly together.
- SturdiRock® is designed for operating temperatures from below ambient to 1400°F (760°C). During initial start-up, controlled binder decomposition will occur at the inside surface of the insulation when the internal temperature of the insulation exceeds 450°F (232°C). Provide adequate ventilation to prevent odour and smoke.
- For satisfactory performance, properly installed protective vapor retarders or barriers should be used on sub-ambient temperature applications to reduce movement of moisture through or around the insulation to the colder surface.
- Wire insulation to pipe and fix the metal jacketing with metal bands or sheet metal screws. Position metal bands at butt joint overlaps and in between joints to secure jacket.

\*\*\*\* "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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