



Specialty Products
and Insulation

Mineral Wool Pipe Insulation

Description

Mineral Wool Pipe Insulation is a precision cut pipe covering composed of high density stone wool made from naturally occurring Basalt Rock. The covering is produced in two half sections and can be supplied plain or jacketed with materials such as: all service jacket (ASJ), foil scrim kraft (FSK), Glassmat or other suitable jacketing. Mineral wool pipe insulation is available in three foot lengths in sizes from ½" through 28" IPS and wall thicknesses from 1 to 6". Sizes larger than 28" IPS are available in curved segments. See SPI RigidFlex® Insulation cut to size as an alternate insulation for larger pipe sizes and tanks.

Uses

Mineral wool pipe insulation can be used in a wide range of hot or cold pipe applications ranging from -20°F (-29°C) to 1200°F per ASTM C411 (650°C) making it ideal for use on:

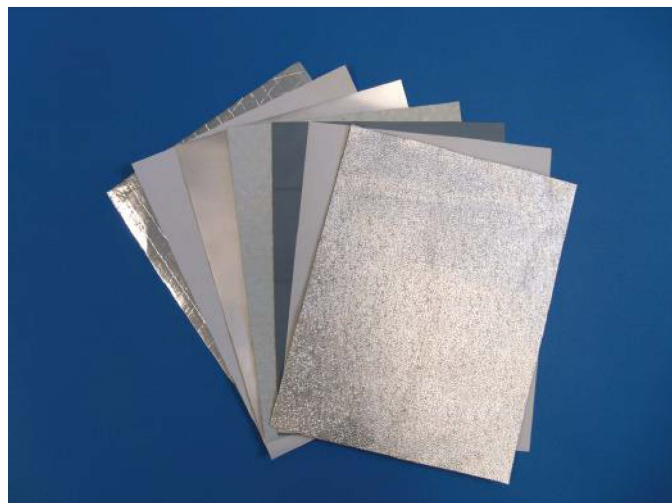
- High temperature pipe lines typically found in industrial power and petrochemical plants, steam production and supply pipe, etc.
- Commercial hot and cold water supply.
- Refrigerated water and other related applications.

Advantages

- Good dimensional stability (thermal).
- Good mechanical abuse and compressive strength.
- Low moisture sorption.
- Fire resistant and non combustible.
- Excellent sound properties.
- Non corrosive.
- Chemically inert, minimizes indoor air quality pollutant potential.
- Made from natural, inorganic material with high recycled content.
- Resistant to the growth of fungi, mold or bacteria.
- Does not sustain vermin.



Small to large pipe sizes, fittings are available as well as curved segments for tank walls.



A variety of jacketing materials are available to meet service and specification requirements.

Performance and compliance use data is based on fabrication of Thermal Conductivity as manufactured by Roxul FabRock® HT.

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Performance and Compliance

ASTM C612	Mineral Fiber Block and Board Thermal Insulation Type IVB.
ASTM C547	Standard Specifications for Mineral Fiber Pipe Insulation Type 1 Grade A (850°F).
ASTM C585-90 (2004)	Standard Practice for Inner and Outer Diameters of Rigid Thermal Insulation for Nominal Sizes of Pipe and Tubing (NPS System).
ASTM C450	Standard Practice for Fabrication of Thermal Insulating Fitting Covers for NPS Piping and Vessel Lagging.

Fire Performance

ASTM E 84 (UL723) CAN/ULC S102	Surface Burning Characteristics Flame Spread 5, Smoke Developed 0
ASTM E 136	Behavior of Materials at 750°C (1382°F) Non-Combustible
CAN4 S114	Test for Non-Combustibility Non-Combustible

Maximum Service Temperature

ASTM C 411	Hot Surface Performance In Compliance with ASTM C612 @1200°F (650°C).
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Moisture Resistance

ASTM C 1104	Moisture Sorption 0.03%
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Dimensional Stability

ASTM C 356	Linear Shrinkage <0.4%
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Thermal Conductivity

ASTM C177

BTU.in/hr. °F.ft² (W/m.K)

25°F (-4°C)	0.221 (0.0318)
75°F (24°C)	0.239 (0.0345)
100°F (38°C)	0.253 (0.0365)
200°F (93°C)	0.299 (0.0432)
300°F (149°C)	0.350 (0.0504)
400°F (204°C)	0.383 (0.0553)
500°F (260°C)	0.464 (0.0669)
600°F (316°C)	0.549 (0.0792)
700°F (371°C)	0.660 (0.0952)

Thermal Resistance

ASTM C 518 (C177)	R-value/inch @ 75°F, 4.2 hr.ft² ./Btu (at time of Mftr). RSI value/25.4 mm @ 24°C 0.74 m²K/W.
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Corrosion Resistance

ASTM C 665	Corrosiveness <u>Passed</u> .
ASTM C 795*	Stainless Steel Stress Corrosion Specification as per Test <i>Methods C871 and C692</i> : U.S. Nuclear Regulatory Commission, Reg. Guide #1.36: U.S. Military Specifications MIL-I-24244 (all versions including and C). <u>Conforms</u> *"Provisions for lot testing may be required, consult manufacturer."

Compressive Strength

ASTM C165	at 10% 720 psf (34.3 kPa)
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Disclaimer and Limitation of Warranty: The purchaser/user is advised to consult with the appropriate professionals and to read the manufacturer's product information to determine the adequacy or appropriateness of the product for the use intended. SPI makes no claim or representation regarding the use or applicability of the products. Further, SPI makes no warranty, expressed or implied, and disclaims all warranties including warranties of merchantability and fitness for a particular purpose.



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