



## SPECIALTY PRODUCTS & 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:

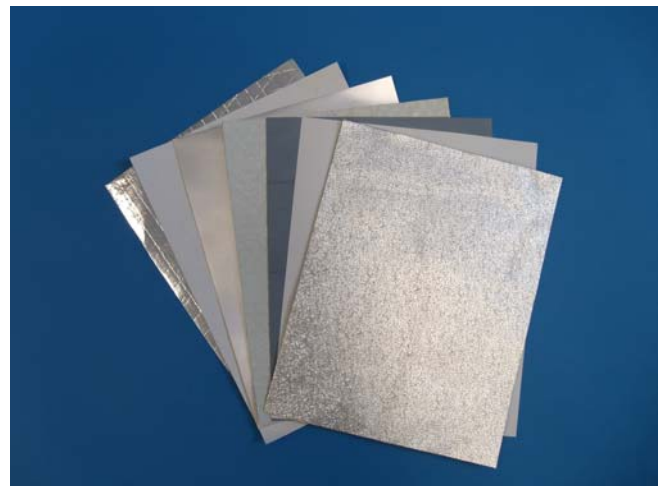
- High temperature pipe lines typically found in industrial power and petrochemical plants, steam production and supply pipe, etc.
- Commercial hot and cold water supply.
- Refrigerated water and other related applications.

#### 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.

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

# Mineral Wool Pipe Insulation

## 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)* Surface Burning Characteristics  
Flame Spread 5, Smoke Developed 0
- 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).

## Moisture Resistance

- ASTM C 1104* Moisture Sorption 0.03%

## Dimensional Stability

- ASTM C 356* Linear Shrinkage <0.4%

## Thermal Conductivity

- ASTM C177*

	BTU.in/hr. °F.ft <sup>2</sup> (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 (C 177)*

R-value/inch @ 75°F, 4.2 hr.ft<sup>2</sup>.F/Btu (at time of Mftr). RSI value/25.4 mm @ 24°C  
0.74 m<sup>2</sup>K/W.

## Corrosion Resistance

- ASTM C 665* Corrosiveness Passed.
- 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). Conforms  
\*“Provisions for lot testing may be required, consult manufacturer.”

## Compressive Strength

- ASTM C165* at 10% 720 psf (34.4 kPa)



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