DESCRIPTION
Micro-Lok HP Fiber Glass Pipe Insulation is a high-performance insulation made from rotary glass fibers bonded with a thermosetting resin and produced in 36" (0.92 m) lengths. Micro-Lok HP insulation is used to insulate standard iron pipe and copper tubing. The 3’ (0.92 m) sections are available plain or with a factory-applied vapor-barrier jacket. The all-service (ASJ) vapor-retarder jacket includes a longitudinal, self-sealing closure lap. The jacket system is adhered to each fiber glass section using a specially formulated adhesive to ensure jacket securement. Latex paint may be applied to the Micro-Lok HP jacket after installation.

The factory-installed tape system permits installation at ambient temperatures down to 20°F (-7°C) and will not soften or separate when exposed to high ambient temperatures and humidity.

USES
Micro-Lok HP fiber glass pipe insulation is suitable for installation over hot, cold, concealed and exposed piping systems with operating temperatures up to 850°F (454°C). Weather-protective jacketing is required for outdoor applications. Pipes operating below ambient temperatures require all joints to be sealed with the factory-applied, self-seal lap and butt strips.

PHYSICAL PROPERTIES

Service Temp. Range (ASTM C411) 0°F to 850°F (-18°C to 454°C)
Moisture Sorption <5% by weight
Alkalinity <0.6% expressed as Na₂O
Corrosivity (ASTM C665) Does not accelerate
Capillarity Negligible (after 24 hours)
Shrinkage (ASTM C356) None
Microbial Growth (ASTM C1338) Does not promote microbial growth
Surface Burning Characteristics Composite HFC 25/50 per ASTM E84, NFPA 255, CAN/ULC S102-M88
Limited Combustibility NFPA 90A and 90B
Jacketing ASTM C1136 (Type I)
Water Vapor Permeance (ASTM E96 – Procedure A) 0.02 perms max.
Burst Strength (ASTM D774) 50 Beach Units (1.5 Joules min.)
Tensile Strength (ASTM D828) 45 lbs./in. (7.9N/mm) width min. (MD)
30 lbs./in. (5.23N/mm) width min. (CD)

Operating Temperature Limits: 0°F to 850°F (-18°C to 454°C)

SPECIFICATION COMPLIANCE

- ASTM C547 Type I (Replaces HH-I-558B, Form D, Type III, Class 12, Class 13 up to 850°F [454°C])
- ASTM C585 – Dimension Standard
- ASTM C1136 (Jacketing) (Replaces HH-B-100B, Type I & II)
- MIL-I-22344D
- NRC 1.36, ASTM C795, MIL-I-24244C
- Coast Guard/IMO Approved 164.109/56/0 (plain, unjacketed only – excluding ¾ x ½ [22 mm x 13 mm], ½ x ½ [13 mm x 13 mm])
- New York City MEA # 330-85-M
- California Bureau of Home Furnishings and Thermal Insulation – Registry Number CA-T040 (CO)
- Firestop Assemblies: Meets requirement for jacketed fiber glass pipe insulation product density at or above 3.5 pcf.

GREEN BUILDING ATTRIBUTES

Manufacturing Location Defiance, Ohio (43512)
Recycled Content 36%
Volatile Organic Compounds (ASTM D5116) Total 0.15 g/l
Water Vapor Permeance (ASTM E96 – Procedure A) Formaldehyde Aldehydes 0.009 ppm 0.009 ppm
Fiber Glass Pipe Insulation Volatile Organic Compounds (Calculated) Total <49 g/l
Self-Sealing Lap & Butt Strips

GREEN BUILDING CERTIFICATIONS

GREENGUARD®
- Indoor Air Quality Certified
- Children and Schools Certified

LEED® Credits
LEED-NC See JM.com/buildgreen

GREENGUARD® Certified products have been screened for more than 10,000 volatile organic compounds (VOCs) and meet stringent standards for low chemical emissions based on established criteria from key public health agencies.
QUALIFICATIONS FOR USE
A sufficient thickness of insulation must be used to keep the maximum surface temperature of Micro-Lok HP insulation below 150°F (66°C). In addition, at operating temperatures above 500°F (260°C), Micro-Lok HP pipe insulation must be applied in a thickness ranging from 2” (51 mm) minimum to 6” (152 mm) maximum.

During initial heat-up to operating temperatures above 350°F (177°C), an acrid odor and some smoke may be given off as the organic binders used in the fiber glass pipe insulation begin to decompose. When this occurs, caution should be exercised to ventilate the area well. This loss of binder does not directly affect the thermal performance of the pipe insulation, but the compressive strength and resiliency of the product are reduced. For applications with excessive physical abuse or vibration at high temperatures, consult your local Insulation Systems Market Development Manager for alternate material recommendations.

CHILLED WATER SYSTEMS
For chilled water systems, see Chilled Water InsulSpec™ – 3-Part Specification, CI-239.

The physical and chemical properties of Micro-Lok® HP High-Performance Fiber Glass Pipe Insulation listed herein represent typical, average values obtained in accordance with accepted test methods and are subject to normal manufacturing variations. They are supplied as a technical service and are subject to change without notice. Numerical flame spread and smoke developed ratings are not intended to reflect hazards presented by these or any other materials under actual fire conditions. Check with the Regional Sales Office nearest you to ensure current information.

All Johns Manville products are sold subject to Johns Manville’s standard Terms and Conditions including Limited Warranty and Limitation of Remedy. For a copy of the Johns Manville standard Terms and Conditions, Limited Warranty and Limitation of Remedy, and information on other Johns Manville thermal insulations and systems, call (800) 654-3103.