DESCRIPTION
Micro-Lok® HP Ultra fiberglass pipe insulation is a high-performance pipe insulation with a polypropylene (PP)-coated factory-applied vapor-barrier jacket. Micro-Lok HP Ultra is made from rotary glass fibers bonded with a thermosetting resin and produced in 36’ (0.92 m) lengths and is used to insulate standard iron pipe, plastic pipe and copper tubing. The PP-coated jacket includes a longitudinal, self-sealing closure lap and matching butt strip. The jacket system is adhered to each fiberglass section using a specially formulated adhesive to ensure jacket securement.

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.

Micro-Lok HP Ultra’s PP-coated factory-applied vapor retarder jacket can be wiped down using a soft cloth and some soapy water. The jacket can also resist minor exposure to transient liquid water. Micro-Lok HP Ultra is intended for indoor use. Outdoor use of Micro-Lok HP Ultra requires separate weather protection.

USES
Micro-Lok HP Ultra fiberglass 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. Pipe operating below ambient temperature requires all joints to be sealed with 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 <0.06% 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 FHC 25/50 per ASTM E84, CAN/ULC S102.2
Limited Combustibility <3500 BTU/lb
Jacketing (Poly ASJ) ASTM C1136 (Type I, II, III, IV)
Pipe operating below ambient temperature requires all joints to be sealed with factory-applied, self-seal lap and butt strips.

WATER VAPOR PERMEANCE
Vapor Permeance (ASTM E96 – Procedure A) 0.01 perm max.
Bursting Strength (ASTM D774) 100 psi (8.70kg/CM²)
Tensile Strength (ASTM D428) 75 lbs./in. (13.1 N/mm) width min. (MD)
60 lbs./in. (10.5 N/mm) width min. (CD)

SPECIFICATION COMPLIANCE
- ASTM C547 Type I (Replaced HH-I-558B, Form D, Type III, Class 12, Class 13 up to 850°F (454°C))
- ASTM C585 – Dimension Standard for pipe ID only
- ASTM C1336 (Jacketing) Replaces HH-B-100B, Type I & II
- MIL-DTL-32585
- MIL-I-22344D, MIL-PRF-22344E
- Coast Guard/IMO Approved 164.109/56/0 (plain, unjacketed only – excluding 7/8 x ½ [22 mm x 13 mm], ½ x ½ [13 mm x 13 mm])
- MEA Complaint
- California Bureau of Home Furnishings and Thermal Insulation – Registry Number CA-T040 (CD)
- Firestop Assemblies: Meets requirement for jacketed fiberglass pipe insulation product at or above 2.6 pcf.
- ASTM E84, CAN ULC S102.2 – 25/50 listed and labeled Intertek testing laboratories
- ASTM D2863 – Limiting Oxygen Index (LOI) minimum 26
- ASTM C1338
- NRC 1.36, ASTM C795, MIL-I-24244C, MIL-DTL-24244D

*When ordering material to comply with ASTM C795, NRC 1.36 & MIL-I-24244 a statement of that fact must appear on the purchase order. Specific lot testing will be conducted and a certification of compliance can be provided.
QUALIFICATIONS FOR USE
A sufficient thickness of insulation must be used to keep the maximum surface temperature of Micro-Lok HP Ultra below 150°F (66°C). In addition, at operating temperatures above 500°F (260°C), Micro-Lok HP Ultra 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 fiberglass 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, MECH-239.