DESCRIPTION

Micro-Lok fiberglass pipe insulation is made from biosoluble glass fibers bonded with a thermosetting resin and produced in 36” (0.92 m) lengths. Jacketed with a reinforced vapor retarder facing and a factory-applied, longitudinal acrylic adhesive closure system, Micro-Lok insulation is designed for application temperatures from 0°F to 850°F (-18°C to 454°C). Micro-Lok insulation is used to insulate standard iron pipe, plastic pipe, and copper tubing. Section joints are sealed with butt strips, which are supplied from the factory.

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 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. 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: 0°F to 850°F (-18°C to 454°C)
Moisture Sorption: <5% by weight
Alkalinity: <0.6% expressed as Na2O
Corrosivity: Does not accelerate
Shrinkage: None
Fungi & Bacteria Resistance: Does not breed or promote
Surface Burning Characteristics: Composite FHC 25/50 per ASTM E84, UL 722, NFPA 255, CAN/ULC S102-M88
Limited Combustibility: NFPA 259
Jacketing: ASTM C1136 (Type I & II)
Water Vapor Permeance (ASTM E96 – Procedure A): 0.02 perms max.
Burst Strength (ASTM D774): 55 lbs/in² (4.6 Kg/cm²)
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 C1136 (Jacketing) (Replaces HH-B-100B, Type I & II)
ASTM C547 Type I (Replaces HH-I-558B, Form D, Type III, Class 12, Class 13 up to 850°F [454°C])
ASTM C585 Dimensional Standard
MIL-DTL-32585 Type 1, Form 4, Facing A (unjacketed only)
MIL-I-22344D, MIL-PRF-22344E
NFPA 90A & 90B, FHC 25/50
NRC 1.36, ASTM C2795, MIL-I-24244C, MIL-DTL-24244D*

*Sustainable Building Attributes

Volatile Organic Compounds (ASTM D5116)
Total: 0.15 g/l
Aldehydes: 0.15 g/l
Formaldehyde: 0.009 ppm

Self-Sealing Lap & Butt Strips

SUSTAINABLE BUILDING CERTIFICATIONS

GREENGUARD® Certified
GREENGUARD® GOLD Certified
LEED® Credits See JM.com/buildgreen
LEED-NC JM LEED Credit Guide (HIG-1231)

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.
APPLICATION RECOMMENDATIONS*

1. Do not apply Micro-Lok insulation if air temperature is below 20°F (-7°C) or above 130°F (54°C) due to the effect of temperature on tape performance. We recommend stapling when application falls outside this temperature range. When stapling, we recommend mastic be applied over staples to prevent moisture penetration.

2. If stored below 20°F (-7°C) or above 130°F (54°C), insulation cartons should stand within the recommended temperature range for 24 hours prior to application.

3. Once release paper is removed, both adhesive and lap must be kept free of dirt and water, and the lap sealed immediately.

4. When adhered, the lap and butt strips must be pressurized by rubbing firmly with a plastic squeegee or the back of a knife blade to ensure positive closure.

QUALIFICATIONS FOR USE

A sufficient thickness of insulation must be used to keep the maximum surface temperature of Micro-Lok insulation below 150°F (66°C). In addition, at operating temperatures above 500°F (260°C), Micro-Lok 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 Performance Materials Division Market Development Manager for alternate material recommendations.

CHILLED WATER SYSTEMS

For chilled water systems, see Chilled Water InsulSpec™ – 3-Part Specification, MECH-239.

Notes:

'2½' and 23 IPS not available in this insulation thickness.

"22" and 23 IPS not available in this insulation thickness.

'21; 22" and 23 IPS not available in this insulation thickness.

'19" IPS not available in this insulation thickness.

'3½" CTS not available in this insulation thickness.

SIZE AVAILABILITY

<table>
<thead>
<tr>
<th>Insulation Thickness</th>
<th>Iron Pipe Size Range</th>
<th>Copper Tubing Size Range</th>
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<tbody>
<tr>
<td>in</td>
<td>mm</td>
<td>in</td>
</tr>
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<td>5</td>
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<td>3 – 20‡</td>
</tr>
</tbody>
</table>

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APPLICATION RECOMMENDATIONS*

**Micro-Lok Pipe Insulation and Butt Strips.**

1. Do not apply Micro-Lok insulation if air temperature is below 20°F (-7°C) or above 130°F (54°C) due to the effect of temperature on tape performance. We recommend stapling when application falls outside this temperature range.

When stapling, we recommend mastic be applied over staples to prevent moisture penetration.

2. If stored below 20°F (-7°C) or above 130°F (54°C), insulation cartons should stand within the recommended temperature range for 24 hours prior to application.

3. Once release paper is removed, both adhesive and lap must be kept free of dirt and water, and the lap sealed immediately.

4. When adhered, the lap and butt strips must be pressurized by rubbing firmly with a plastic squeegee or the back of a knife blade to ensure positive closure.

*For complete application recommendations and installation instructions, see MECH-261 InsulSpec Specifications.

CHILLED WATER SYSTEMS

For chilled water systems, see Chilled Water InsulSpec™ – 3-Part Specification, MECH-239.

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