DESCRIPTION

Micro-Lok HP Plain fiberglass pipe insulation is a high-performance insulation made from rotary glass fibers bonded with a thermosetting resin and produced in 36 inch (0.92 m) lengths. Micro-Lok HP Plain is used to insulate standard iron pipe, plastic pipe and copper tubing.

USES

Micro-Lok HP Plain 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.

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

SPECIFICATION COMPLIANCE

• ASTM C 547 Type I (Replaces HH-I-558B, Form D, Type III, Class 12, Class 13 up to 850°F [454°C])
• ASTM C 585 – Dimension Standard
• MIL-DTL-32585
• MIL-I-22344D, MIL-PRF-22344E
• Coast Guard/IMO Approved 164.109/56/0 (plain, 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)

• NRC 1.36, ASTM C 795, MIL-I-24244C, MIL-DTL-24244D*

*When ordering material to comply with these specifications, 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.

PHYSICAL PROPERTIES

Service Temp. Range (ASTM C 411) 0°F to 850°F (-18°C to 454°C)
Moisture Sorption <5% by weight
Alkalinity <0.6% expressed as Na₂O
Corrosivity (ASTM C 665) Does not accelerate
Capillarity Negligible (after 24 hours)
Shrinkage (ASTM C 356) None
Microbial Growth (ASTM C 1338) Does not promote microbial growth
Surface Burning Characteristics Composites FHC 25/50 per ASTM E 84, NFPA 255, CAN/ULC S102-M88
Limited Combustibility NFPA 259

THERMAL CONDUCTIVITY (“K”) *

Mean Temperature °F 75 100 200 300 400 500
Temperature °C 24 38 93 149 204 260
Btu•in/(hr•ft²•°F) 0.23 0.24 0.28 0.34 0.44 0.55
W/m•°C 0.034 0.035 0.040 0.049 0.063 0.079

* Apparent thermal conductivity values are determined by applying procedures dictated per ASTM C1045 on test data obtained using ASTM Test Method C335. All values are based on nominal manufacturing and testing parameters, are subject to normal variation, and are not guaranteed for specification purposes or otherwise.

SUSTAINABLE BUILDING ATTRIBUTES

Manufacturing Location Defiance, Ohio (43512)
Recycled Content (glass only) 32%
Volatile Organic Compounds (ASTM D 5116)
(Analysis ASTM D 6196 & ASTM D 5197)
Fiberglass Pipe Insulation Formaldehyde Aldehydes 0.009 ppm 0.009 ppm
LEED® Credits LEED-NC See JM.com/buildgreen JM LEED Credit Guide (HIG-1231)

MECH-252 10/02/18 (Replaces 05/18/18)
### Size Availability

<table>
<thead>
<tr>
<th>Insulation Thickness</th>
<th>Iron Pipe Size Range</th>
<th>Copper Tubing Size Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>in.</td>
<td>mm</td>
<td>in.</td>
</tr>
<tr>
<td>½</td>
<td>13</td>
<td>½ – 6</td>
</tr>
<tr>
<td>1</td>
<td>25</td>
<td>½ – 24</td>
</tr>
<tr>
<td>1½</td>
<td>38</td>
<td>½ – 24</td>
</tr>
<tr>
<td>2</td>
<td>51</td>
<td>½ – 24</td>
</tr>
<tr>
<td>2½</td>
<td>64</td>
<td>1 – 24</td>
</tr>
<tr>
<td>3</td>
<td>76</td>
<td>1 – 24</td>
</tr>
<tr>
<td>3½</td>
<td>89 (1½ – 24')</td>
<td>1½ – 24'</td>
</tr>
<tr>
<td>4</td>
<td>102</td>
<td>3 – 24'</td>
</tr>
<tr>
<td>4½</td>
<td>114</td>
<td>3 – 24'</td>
</tr>
<tr>
<td>5</td>
<td>127</td>
<td>3 – 20'</td>
</tr>
</tbody>
</table>

### Notes:

1. 2½” and 23” IPS not available in this insulation thickness.
2. 22” and 23” IPS not available in this insulation thickness.
3. 2½”, 22” and 23” IPS not available in this insulation thickness.
4. 19” IPS not available in this insulation thickness.
5. 3½” CTS not available in this insulation thickness.

### Qualifications for Use

A sufficient thickness of insulation must be used to keep the maximum surface temperature of Micro-Lok HP Plain below 150°F (66°C). In addition, at operating temperatures above 500°F (260°C), Micro-Lok HP Plain pipe insulation must be applied in a thickness ranging from 2 inches (51 mm) minimum to 6 inches (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.