

DESCRIPTION

Micro-Lok HP Plain Fiber Glass 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 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.

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

SPECIFICATION COMPLIANCE

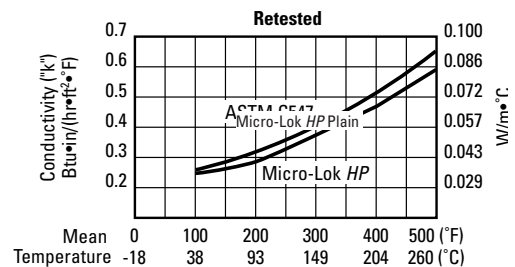
- ASTM C 547 Type I (Replaces HH-I-558B, Form D, Type III, Class 12, Class 13 up to 850°F [454°C])
- ASTM C 585 – Dimension Standard
- MIL-DTL-32585
- MIL-I-22344D, MIL-PRF-22344E
- NRC 1.36, ASTM C 795, MIL-I-24244C, MIL-DTL-24244D
- Coast Guard/IMO Approved 164.109/56/0 (plain, excluding 7/8 x 1/2 [22 mm x 13 mm], 1/2 x 1/2 [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)

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 Na ₂ O
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	Composite FHC 25/50 per ASTM E 84, NFPA 255, CAN/ULC S102-M88
Limited Combustibility	NFPA 259


GREEN BUILDING ATTRIBUTES

Manufacturing Location	Defiance, Ohio (43512)	
Recycled Content (glass only)	41%	
Volatile Organic Compounds (ASTM D 5116)	Total	0.15 g/l
(Analysis ASTM D 6196 & ASTM D 5197)		
Fiber Glass Pipe Insulation	Formaldehyde Aldehydes	0.009 ppm
		0.009 ppm
LEED® Credits	See JM.com/buildgreen	
LEED-NC	JM LEED Credit Guide (HIG-1231)	

THERMAL CONDUCTIVITY ("K") *


Mean Temperature	°F	75	100	200	300	400	500
	°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.



MICRO-LOK® HP PLAIN

HIGH-PERFORMANCE FIBERGLASS PIPE INSULATION

SIZE AVAILABILITY

Insulation Thickness		Iron Pipe Size Range		Copper Tubing Size Range	
in.	mm	in.	mm	in.	mm
½	13	½ – 6	13 – 152	⅝ – 4⅝ ⁵	16 – 105
1	25	½ – 24	13 – 610	⅝ – 6⅝	16 – 156
1½	38	½ – 24	13 – 610	⅝ – 6⅝	16 – 156
2	51	½ – 24	13 – 610	1⅜ – 6⅝	29 – 156
2½	64	1 – 24	25 – 610	1⅜ – 6⅝	35 – 156
3	76	1 – 24	25 – 610	1⅜ – 6⅝	35 – 156
3½	89	1½ – 24 ¹	38 – 610	–	–
4	102	3 – 24 ²	76 – 610	–	–
4½	114	3 – 24 ³	76 – 610	–	–
5	127	3 – 20 ⁴	76 – 508	–	–

Notes:

- ¹ 2½" and 23" IPS not available in this insulation thickness.
- ² 22" and 23" IPS not available in this insulation thickness.
- ³ 21", 22" and 23" IPS not available in this insulation thickness.
- ⁴ 19" IPS not available in this insulation thickness.
- ⁵ 3⅝" 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 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.



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The physical and chemical properties of MicroLok® HP Plain high-performance fiberglass 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.

All Johns Manville products are sold subject to Johns Manville's standard Terms and Conditions, which includes a Limited Warranty and Limitation of Remedy. For a copy of the Johns Manville standard Terms and Conditions or for information on other Johns Manville thermal insulation and systems, visit www2.jm.com/terms-conditions or call (800) 654-3103.