



Fiber Glass Insulation

## The answer to every pipe and equipment insulation need.

For years, Johns Manville has demonstrated its leadership with the industry's most complete product line and unmatched technical support.

Now, with the introduction of our new state-of-the-art pipe plant in Defiance, Ohio, we are bringing contractors exactly what they have asked for—new levels of product consistency in pipe insulation. This plant joins our existing network of plants to provide industry leading products.

JM has products for a variety of equipment requirements. Our systems are used indoors and out, in food, pharmaceutical, beverage, chemical, power, and other plant applications. For every pipe and equipment need in any industry, depend on JM for high performance, every time.

### **Take advantage of consistent product quality.**

Our new plant is producing Micro-Lok® HP to the highest standards of product quality and consistency. For contractors like you, this means a product that installs easily every time. It enhances the quality of the finished job, and requires minimal, if any, callbacks or repairs. Micro-Lok HP will enhance your work, and your reputation, with quality you can count on.

**For more information, visit [specJM.com](http://specJM.com).**

Pipe & Equipment Insulations  
Product Selection Guide

	Icon Key
	Thermal
	Acoustical
	Fire Resistance
	Moisture Control
	Formaldehyde-free™ Products for improved indoor air quality

For more information, visit us at  
**specJM.com**



800 Series Spin-Glas®  
Fiber Glass Duct and Equipment Insulation



Spin-Glas®  
Fiber Glass Board Insulation



HTB 26 Spin-Glas®  
Fiber Glass Blanket Insulation



DESCRIPTION

This fiber glass insulation board is designed for use on equipment in commercial and industrial HVAC, power, and process applications.

**Operating Temperature Limit:**  
0°F to 450°F (-18°C to +232°C)

**1000 Series Spin-Glas®**

A semi-rigid board used for insulating furnaces, boilers, heated vessels, ducts, tanks, and other systems operating at medium to high temperatures.

**Operating Temperature Limit:** 850°F (454°C)

**Precipitator Spin-Glas®**

A semi-rigid board specifically designed for insulating precipitators, ducts, and breechings in power generation plants.

**Operating Temperature Limit:** 850°F (454°C)

A lightweight insulating blanket specifically designed for insulating irregular surfaces.

**Operating Temperature Limit:** 1000°F (538°C)

AVAILABILITY

Type	Density		Thickness	
	pcf	kg/m <sup>3</sup>	in	mm
812	1.50	24	1½-4	38-102
813	2.25	36	1½-4	38-102
814	3.00	48	1-4	25-102
815	4.25	68	1-2½	25-64
817	6.00	96	1-2	25-51

800 Series Spin-Glas is available plain or faced with an AP or FSK vapor retarder jacketing.

	1000 Series Spin-Glas (Boards)	
	in	mm
Thickness	1-4 (½" inc.)	25-102 (13 mm inc.)
Width	24, 48	610, 1219
Length	48, 96	1219, 2438

	Precipitator Spin-Glas (Boards)	
	in	mm
Thickness	1-4 (½" inc.)	25-102 (13 mm inc.)
Width	12, 24	305, 610
Length	48, 96	1219, 2438

	HTB 26 Spin-Glas (Rolls)	
	in	mm
Thickness	1, 1½, 2, 3, 4	25, 38, 51, 76, 102
Width	24, 36, 48	610, 914, 1219
Length	◆	◆

◆ Length determined by thickness.

PERFORMANCE CHARACTERISTICS

**THERMAL CONDUCTIVITY ("k")  
(ASTM C 177 AND C 518)**

Type	Mean Temperature	
	75°F	24°C
812	0.24*	0.035**
813	0.23*	0.033**
814	0.23*	0.033**
815	0.22*	0.032**
817	0.22*	0.032**

\*Btu•in/(hr•ft<sup>2</sup>•°F) \*\* W/m • °C

**THERMAL CONDUCTIVITY ("k")  
(ASTM C 177 AND C 518)**

Type	Mean Temperature	
	75°F	24°C
1000 SSG	0.23*	0.033**
Precipitator SG	0.23*	0.033**

\*Btu•in/(hr•ft<sup>2</sup>•°F) \*\* W/m • °C

**THERMAL CONDUCTIVITY ("k")  
(ASTM C 177 AND C 518)**

Type	Mean Temperature	
	75°F	24°C
HTB 26	0.26*	0.037**

\*Btu•in/(hr•ft<sup>2</sup>•°F) \*\* W/m • °C

SPECIFICATION COMPLIANCE

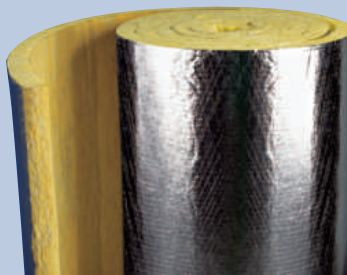
ASTM C 612, Type 1A and 1B  
• (813, 814, 815, 817)  
ASTM C 553, Type III  
• (812 Only)  
ASTM C 795  
ASTM C 1136  
• Type I – AP Facing  
• Type II – AP and FSK Facing  
ASTM E 84, UL 723, NFPA 255  
FHC 25/50, NFPA 90A and 90B  
HH-I-558C, Form B, Type I, Class 7  
• (812, 813, 814, 815)  
MIL-I-24244C  
NRC 1.36  
Canada: CGSB 51-GP-10M  
CAN/ULC S102-M88

ASTM C 612, Type II  
ASTM C 795  
ASTM E 84, FHC 25/50  
ASTM E 136 (Noncombustible)  
MIL-I-24244C  
MIL-I-22023D, Type I and II, Class 6  
USCG 164.009  
NRC 1.36  
CAN/51-GP-10M  
ASTM C 612, Type II  
ASTM C 795  
ASTM E 84, FHC 25/50  
ASTM E 136 (Noncombustible)  
HH-I-558C, Form B, Type I, Class 8  
• Up to 850°F (454°C)  
MIL-I-24244C  
USCG 164.009  
NRC 1.36  
CAN/51-GP-10M

ASTM C 553, Type V  
ASTM C 1139, Type I, Grade 2  
ASTM C 795  
ASTM E 84, FHC 25/50  
ASTM E 136 (Noncombustible)  
HH-I-558C, Form B, Type I, Class 8  
MIL-I-22023D, Type I, Class 3  
MIL-I-24244C  
USCG 164.009  
NRC 1.36  
CAN/51-GP-11M



**Fabrication Board**  
Semi-Rigid Fiber Glass Insulation Boards



**Micro-Flex™**  
Large Diameter Pipe and Tank Wrap



**Microlite® XG™**  
Formaldehyde-free™ Fiber Glass Duct Wrap



**DESCRIPTION**

Fabrication Boards are commonly fabricated into pipe and tank Insulation products used on heated pipes, ducts, and equipment. They can also be used in sheet form, plain or faced, for commercial and industrial heating, air conditioning, and process equipment.  
**Operating Temperature Limit:** 850°F (454°C)

Unique fiber orientation gives it increased compressive strength, and permits close installation on round surfaces without reducing the thickness of insulation resulting in a loss of insulation efficiency. It is ideally suited for application on rounded shapes such as pipes, tanks, ducts, and vessels.  
**Operating Temperature Limit:** 0°F to 850°F (-18°C to 454°C)

Microlite XG Formaldehyde-free™ duct wrap insulation is recommended as thermal insulation for the exterior of HVAC systems or other spaces or surfaces where temperature and acoustical control is required.  
**Operating Temperature Limit:** 40°F to 250°F (4°C to 121°C) faced

**AVAILABILITY**

Type	Density		Thickness		High Temp. Limit	
	pcf	kg/m <sup>3</sup>	in	mm	°F	°C
3005	3.0	48	1-4	25-102	850	454
3008	3.0	48	1-4	25-102	650	343

Thickness*	Width	
	in	mm
1-4	25-102	3 0.92
1-4	25-102	4 1.22

\*Available in 1/2" (13 mm) increments.

Thickness	in		mm	
	in	mm	in	mm
Type 75	1½	38	2	51
	2.3	58	3	76
	3	76	1½	38
Type 100	2	51	1½	38
	2	51	1½	38
Type 150	1½	38	2	51
	2	51		

**PERFORMANCE CHARACTERISTICS**

**THERMAL CONDUCTIVITY ("k") (ASTM C 177 AND C 518)**

Type	Mean Temperature			
	75°F	24°C	300°F	149°C
3005	0.23*	0.033**	0.33*	0.048**
3008	0.23*	0.033**	0.36*	0.052**

\*Btu•in/(hr•ft<sup>2</sup>•°F) \*\* W/m • °C

**THERMAL CONDUCTIVITY ("k") (ASTM C 177 AND C 518)**

Mean Temperature		"k"	
°F	°C	Btu•in/(hr•ft <sup>2</sup> •°F)	W/m•°C
75	24	0.24	0.035
150	66	0.28	0.040
200	93	0.32	0.046
300	149	0.39	0.056
400	204	0.46	0.066
500	260	0.58	0.084

**THERMAL PERFORMANCE – INSTALLED R-VALUE @ 75°F (24°C) MEAN TEMP.**

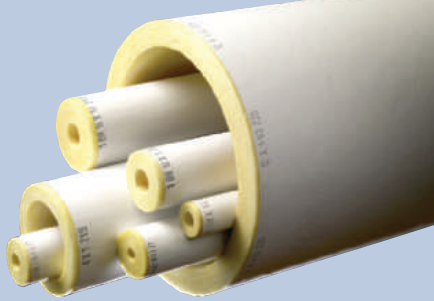
Type	Thickness		R-Value	
	in	mm	(hr•ft <sup>2</sup> •°F)/Btu	m <sup>2</sup> •°C/W
75	1½	38	4.2	0.74
75	2	51	5.6	0.99
75	2.3	58	6.5	1.15
75	3	76	8.3	1.46
100	1½	38	4.5	0.79
100	2	51	6.0	1.06
150	1½	38	4.7	0.83
150	2	51	6.3	1.11

**SPECIFICATION COMPLIANCE**

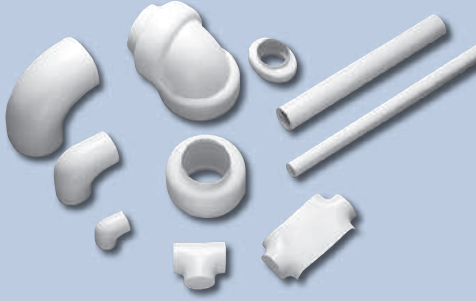
ASTM C 612  
• Class 1 and 2  
• Class 3 (3005 Only)  
ASTM C 795  
HH-I-558B, Form A, Class 1 and 2  
ASTM E 84, UL 723, NFPA 255  
FHC 25/50, NFPA 90A and 90B  
MIL-I-24244B  
NRC 1.36

ASTM C 1393, Type III A  
ASTM E 84  
NYC MEA # 360-03-E

ASTM C 553  
• Type II – Type 75, 100 and 150  
• Type III – Type 150  
ASTM C 1290  
ASTM C 1139, Type II  
• Grade I – Type 75 Faced  
• Grade II – Type 100 Faced  
• Grade III – Type 150 Faced  
ASMT E 84, FHC 25/50 – FSK Facing  
ASTM C 1136, Type II – FSK Facing  
NYC MEA # 40-75-M  
Canada: CGSB 51-GP-11M  
CAN/ULC S102-M88



**Micro-Lok® HP**  
High Performance Fiber Glass Pipe Insulation



**Zeston® 2000 PVC**  
Insulated Fitting Covers and Jacketing



**Zeston® 300 Series PVC**  
Fitting Covers and Jacketing for Industrial Use



DESCRIPTION

A rigid, preformed, one-piece, high performance fiber glass pipe insulation. Micro-Lok HP is designed for use on commercial, power, or process lines.

**Operating Temperature Limit:**  
0°F to 850°F (-18°C to +454°C)

These PVC fitting covers and jacketing, when combined, form a completely sealed system which meets the requirements of the USDA and FDA approval for food, beverage, and pharmaceutical facilities.

**Operating Temperature Limit:**  
PVC: 0°F to 150°F (-18°C to +66°C)  
Insert: 0°F to 450°F (-18°C to +232°C)

These heavy-duty PVC insulated fitting covers and jacketing are specifically designed for industrial and institutional pipe applications.

**Operating Temperature Limit:**  
PVC: 0°F to 150°F (-18°C to +66°C)

AVAILABILITY

**3-Foot (0.92 m) Sections**  
IPS: ½" - 24" (13 mm - 610 mm)\*  
CT: ⅝" - 6⅞" (16 mm - 156 mm)

**Micro-Lok HP is available in thicknesses of:**  
½" - 5" (13 mm - 127 mm)\*  
in ½" (13 mm) increments.  
\*Check for current availability.

Fitting covers, rolls, and Cut & Curled™ jacketing are available in white only. Zeston installation accessories complete a systems package which features ease of installation, uniform appearance, and long-term insulation and protection.

Zeston installation accessories include:  
Perma-Weld® solvent welding system adhesive and applicator • PVC Z-Tape • White, stainless steel thumb tacks

Fitting covers, rolls, and Cut & Curled™ jacketing are available both in white and in colors.

Made from the same rugged, pliable PVC material, Zeston PVC jacketing is designed to match the Zeston 300 Series fitting covers. For use over insulated pipe and bare metal, the PVC jacketing is easy to install and maintain, provides an inherent vapor retarder, and will withstand water and most chemical and low-solvency washdowns.

PERFORMANCE CHARACTERISTICS

**THERMAL CONDUCTIVITY ("k")  
(ASTM C 335)**

Mean Temperature		"k"	
°F	°C	Btu•in/(hr•ft²•°F)	W/m•°C
100	38	0.24	0.035
200	93	0.29	0.042
300	149	0.36	0.052
400	204	0.45	0.065
500	260	0.59	0.085

**THERMAL CONDUCTIVITY OF HI-LO® TEMP  
FIBER GLASS INSULATION INSERT**

Mean Temperature		"k"	
°F	°C	Btu•in/(hr•ft²•°F)	W/m•°C
75	24	0.28	0.040
150	66	0.34	0.049
300	149	0.45	0.065

Zeston 300 Series heavy gauge PVC fitting covers are available in many shapes and sizes. Its two-piece or two-piece welded construction provides ease of fabrication in the field not available in a traditional one-piece fitting cover. This construction is engineered to accommodate various types of fabricated insulation fittings and an improved "matched" fit in the fitting throat area when solvent welding.

Zeston 300 Series heavy gauge is available in shapes for 90° and 45° (1.6 and 0.8 rad.) short and long radius elbows, tees, and valves plus a wide variety of other fittings, flanges, reducers, end caps, soil pipe hubs, traps, and mechanical line fittings. IPS sizes are available from ½" through 24" (13 mm through 610 mm); CT sizes from ⅝" through 6⅞" (16 mm through 156 mm).

SPECIFICATION COMPLIANCE

ASTM C 547, Type I  
ASTM C 585  
ASTM C 1136  
MIL-I-22344D  
NRC 1.36  
ASTM C 795  
FHC 25/50  
MIL-I-24244C  
USCG 164.109  
NYC MEA # 330-85-M

ASTM D 1784, Class 16354-C  
L-P-535E, Composition A, Type II, Grade GU  
L-P-1035A, Composition A, Type II, Grade GU  
ICBO  
SBCCI  
BOCA  
NYC MEA # 7-87  
Canada: CGSB 51-GP-53M  
CAN/ULC S102-M88  
USDA, Agriculture Canada

ASTM D 1784, Class 16354-C  
L-P-535E, Composition A, Type II, Grade GU  
L-P-1035A, Composition A, Type II, Grade GU  
ICBO  
SBCCI  
BOCA  
NYC MEA # 7-87  
Canada: CGSB 51-GP-53M  
CAN/ULC S102-M88  
USDA, Agriculture Canada

The physical and chemical properties of the Pipe & Equipment Insulations 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 assure 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.**



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