

Description

Fiberglas[®] Pipe and Tank Insulation is made of semi-rigid fibrous glass board material, factory-jacketed with a laminated kraft-aluminum foil ASJ facing. The insulation is adhered with the end grain perpendicular to the jacket. This provides a flexible product that is easily wrapped around pipes, tanks or vessels, while providing good rigidity and abuse resistance.

Uses

Applied to pipes, tanks and vessels 10" NPS (250mm DN) and larger. Fiberglas Pipe and Tank Insulation can also be used to insulate pipe flanges, valves, groups of parallel pipes, and pipes with heat tracing lines. It may be applied over existing insulation to increase thickness and satisfy demands for increased energy conservation in already-operating systems.

Features/Benefits

High Compressive Strength

The vertical fiber orientation makes this the strongest, most abuse-resistant *Fiberglas* Pipe Insulation product available.

ASJ Vapor Retarder Jacket

Matches the jacket of *Fiberglas* Pipe Insulation for uniformly good appearance in mechanical rooms.

Instant Availability

Fits all pipes and equipment of 10" NPS (250mm DN) and larger, eliminating the need to stock as many as 60 different pipe insulation thickness and diameter variations.

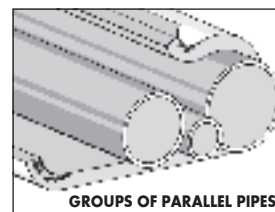
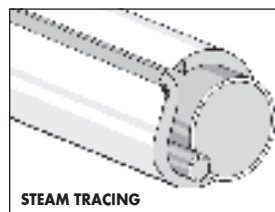
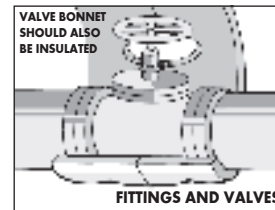
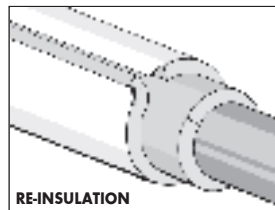
Availability

Thickness, in. (mm)	Recommended Pipe Size, NPS in. (DN,mm)	Roll Length ft. (m)
1 (25)	10 (250) & up	42 (12.8)
1½ (38)	10 (250) & up	27 (8.2)
2 (51)	10 (250) & up	20 (6.1)
2½ (64)	14 (350) & up	26 (7.9)
3 (76)	17 (425) & up	21 (6.4)
3½ (89)	20 (500) & up	18 (5.5)
4 (102)	23 (575) & up	16 (4.9)

Specification Compliance

- ASTM C 795, Thermal Insulation for Use Over Austenitic Stainless Steel*
- ASTM C 1136, Flexible Low Permeance Vapor Retarders for Thermal Insulation, Types I and II
- Mil. Spec. MIL-I-24244C, Insulation Materials, Special Requirements, Type XVII*
- Nuclear Regulatory Commission Guide 1.36, Non-Metallic Thermal Insulation*
- New York City MEA No. 343-83

* Preproduction qualification testing complete and on file. Chemical analysis of each production lot required for total conformance.



Fiberglas® Pipe and Tank Insulation

Physical Property Data

Property	Test Method	Value
Pipe or equipment operating temperature range*	ASTM C 411	0 to 650°F* (-18°C to 343°C)
Insulation jacket temperature limitation	ASTM C 1136	-20°F to 150°F (-29°C to 66°C)
Jacket permeance	ASTM E 96, Proc. A	0.02 perm
Puncture resistance	ASTM D 781	50 units
Compressive strength at 10% deformation	ASTM C 165	125 lb/ft ² (5985 Pa) minimum
Surface burning characteristics	ASTM E 84**	Flame spread 25** Smoke developed 50

*Limited to single layer application.

**The surface burning characteristics of these products have been determined in accordance with ASTM E 84. This standard should be used to measure and describe the properties of materials, products or assemblies in response to heat and flame under controlled laboratory conditions and should not be used to describe or appraise the fire hazard or fire risk of materials, products or assemblies under actual fire conditions. However, results of this test may be used as elements of a fire risk assessment which takes into account all of the factors which are pertinent to an assessment of the fire hazard of a particular end use. Values are reported to the nearest 5 rating.

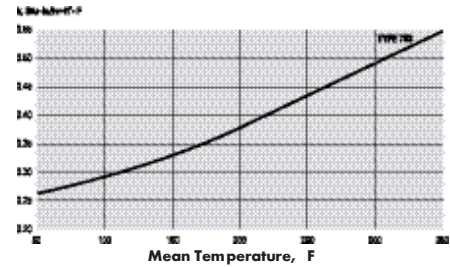
Thermal Performance, ASTM C 680

Insulation		Pipe Operating Temperature, F (C)					
NPS x Thk.	(DN x Thk.)	300 (149)		450 (232)		600 (316)	
in.	mm)	HL	ST	HL	ST	HL	ST
12 x 1	(300 x 25)	251 (241)	121 (49)				
18 x 1	(450 x 25)	345 (332)	122 (50)				
24 x 1	(600 x 25)	453 (436)	123 (51)				
30 x 1	(750 x 25)	561 (539)	123 (51)				
12 x 2	(300 x 51)			292 (281)	122 (50)		
18 x 2	(450 x 51)			414 (398)	126 (52)		
24 x 2	(600 x 51)			539 (518)	127 (53)		
30 x 2	(750 x 51)			663 (637)	127 (53)		
12 x 3	(300 x 76)					370 (356)	127 (53)
18 x 3½	(450 x 89)					449 (432)	124 (51)
24 x 3½	(600 x 89)					576 (554)	125 (52)
30 x 3½	(750 x 89)					702 (675)	126 (52)

Heat Loss (HL), Btu/hr•ft (W/m); Surface Temperature (ST), °F (°C).

Design Conditions: Horizontal piping, 80°F (27°C) average ambient temperature, 0 mph wind speed, ASJ jacket.

Thermal Conductivity



Apparent thermal conductivity curve determined in accordance with ASTM Practice C 1045 with data obtained by ASTM Test Method C 177. Values are nominal, subject to normal testing and manufacturing tolerances.

Mean Temp. F	k Btu in/hr ft ²	Mean Temp.	
		C	W/m C
50	0.26	10	0.037
75	0.27	25	0.040
100	0.29	50	0.045
150	0.33	75	0.050
200	0.38	100	0.056
250	0.43	125	0.063
300	0.49	150	0.070
350	0.55	175	0.078

Application Recommendations

Measure the length of insulation required according to the fabrication guide located on the carton. Cut completely through the insulation and jacket. Use a flap tool to file a stapling flange on one end of the insulation.

Each 36" (914mm) section of insulation may be secured around the pipe using staples and mastic, or by applying staples and pressure sensitive vapor retarder tape. Special care must be taken to vapor seal systems operating below ambient temperatures. Adjacent sections must be tightly butted together, then sealed with vapor retarder tape.

If indoor applications will be painted, use only a water base latex paint. Outdoor applications require protection against weather.



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