



INNOVATIONS FOR LIVING®

# Fiberglas™ Pipe and Tank Insulation

## Product Data Sheet



### Availability

Thickness		Recommended Pipe Size NPS in. (DN, mm)	Roll Length	
in.	(mm)		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)

### Physical Property Data

Property	Test Method	Value
Pipe or equipment operating temperature range <sup>1</sup>	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
Burst Strength, min.	ASTM D 774/D 774M	55 psi
Compressive Strength at 10% Deformation	ASTM C 165	125 lb/ft <sup>2</sup> (5985 Pa) minimum
Surface Burning Characteristics	ASTM E 84**	
Flame Spread <sup>2</sup>		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.

### 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

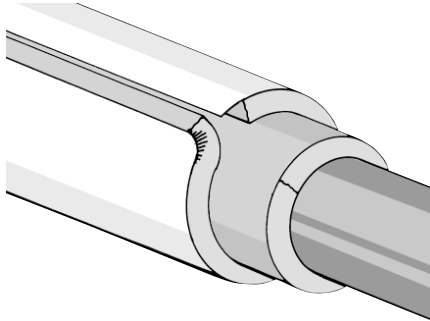
Applied to pipes, tanks and vessels 10" NPS (250mm DN) and larger. Fiberglas™ Pipe and Tank Insulation can also be used to insulate pipe flanges, valves, groups of parallel pipes, and pipes with heat tracing lines. It may be applied over existing insulation to increase thickness and satisfy demands for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

### Product Attributes

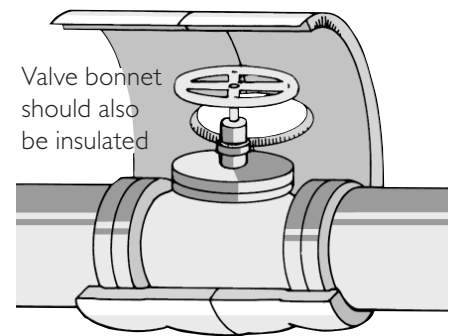
#### High Compressive Strength

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

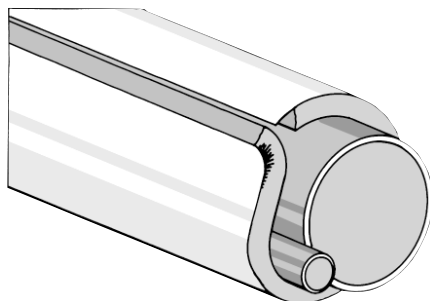
### RE-INSULATION



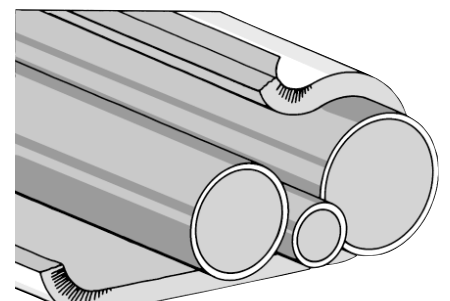
### FITTINGS AND VALVES



### STEAM TRACING



### GROUPS OF PARALLEL PIPES





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### 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.

### 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 XVlh\*
- 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.

### Application Recommendations

Measure the length of insulation required according to the fabrication guide located on the carton. Cut completely through

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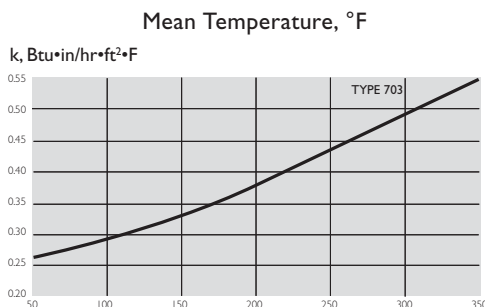
### Thermal Performance, ASTM C 680

Insulation		Pipe Operating Temperature, °F (°C)					
NPS x Thk. in.	(DN x Thk. mm)	300 (149)		450 (232)		600 (316)	
		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	(400 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)
18 x 3½	(450 x 89)					449	(432)
24 x 3½	(600 x 89)					576	(554)
30 x 3½	(750 x 89)					702	(675)

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•ft²•°F	Mean Temp. °C	λ 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

the insulation and jacket. Use a flap tool to filet 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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