

FlexTherm®

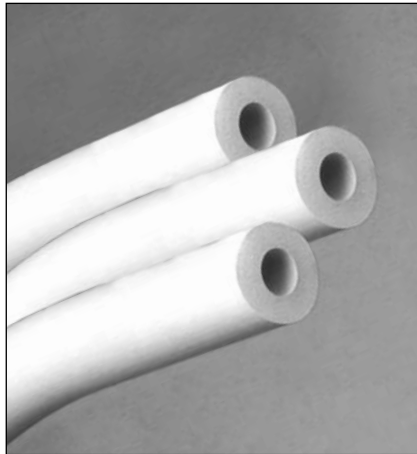
White Tubular Insulation



Made in America

Designed for the Plumbing Industry

Flexible Closed Cell Insulation



WHITE ELASTOMERIC INSULATION

FlexTherm® White is designed for exposed piping areas. FlexTherm® White is suitable for supermarket, hospital and school applications where a more hygienic appearance is preferred. FlexTherm® White meets all FlexTherm® Pipe Insulation specifications and thermal properties.

DESCRIPTION

FlexTherm® White Tubular Insulation is an environmentally friendly, CFC-free, flexible elastomeric thermal insulation. It is white in color, and is available in unslit tubular form in wall thicknesses of 1/2", 3/4" and 1" in sizes ranging from 3/8" I.D. to 4 1/8" I.D. FlexTherm® White is non-porous, non-fibrous and resists mold growth.

APPLICATIONS

FlexTherm® White is used to retard heat gain and prevent condensation formation on cold water plumbing and chilled water systems. It also retards heat flow for hot water plumbing, liquid heating, dual temperature piping and many solar systems. FlexTherm® White is designed for the Plumbing Industry.

FlexTherm® White is recommended for applications ranging from -70°F

to 220°F (-57°C to 104°C). The expanded closed cell structure makes FlexTherm® White an efficient insulator and provides effective moisture vapor resistance.

FlexTherm® White has a very tough skin which withstands tearing, rough handling and severe environmental conditions, and yet is quite flexible for easy installation. Its white color allows it to be covered easily with a white coating.

INSTALLATION

With a factory-applied coating of talc on the smooth inner surface, FlexTherm® White slides easily over pipe or tubing for quick installation. When applied to existing lines, tubing is slit lengthwise and fitted into place. All seams and butt joints should be sealed with approved contact adhesive, making sure both surfaces to be joined are coated with adhesive. FlexTherm® White is intended for indoor use. If used outdoors, protective coating or jacketing is required to protect it from UV and mechanical abuse.

RESISTANCE TO MOISTURE VAPOR FLOW

The closed-cell structure of FlexTherm® White effectively retards the flow of moisture vapor, and is considered a low transmittance vapor retarder. For most indoor applications, FlexTherm® White needs no additional protection.

Additional vapor barrier protection may be necessary for FlexTherm® White when installed on low temperature surfaces that are exposed to continuous high humidity.

FLAME AND SMOKE RATING

FlexTherm® White Tubular Insulation in wall thicknesses of 1" (25 mm)

and below has a flame spread rating of 25 or less and a smoke development rating of 50 or less as tested by ASTM E 84 Method of Testing entitled: "Surface Burning Characteristics of Building Materials." FlexTherm® White is acceptable for use in duct/plenum applications, meeting the requirements of NFPA 90A/B.

Numerical flammability ratings alone may not define the performance of products under actual fire conditions. They are provided only for us in the selection of products to meet limits specified, when compared to a known standard.

SPECIFICATION COMPLIANCE

ASTM C 534 Type 1 (Tubing), Grade 1
ASTM D 1056-00-2C1
New York City MEA 186-86-M Vol. IV
USDA Requirements
ASTM E 84 1-1/2" 25/50-tested according to UL 723 and NFPA 255
Complies with requirements of CAN/ULC S102-03
FMRC 2006 Approval Guide Chapter 14 Pipe Insulation
NFPA No. 101 Class A Rating
NFPA 90A Sect. 2.3.3 for Supplementary Materials for Air Distribution Systems

FlexTherm® White Tubular Insulation

PRODUCT DATA

Physical Properties	FlexTherm® Pipe Insulation		Test Methods
Thermal Conductivity (K) BTU - in/hr - Ft² = °F (W/mK)	90°F (32°C) Mean Temp 75°F (24°C) Mean Temp 50°F (10°C) Mean Temp	.270 (.039) .250 (.036) 260 (.037)	ASTM C 177/C 518 ASTM C 177/C 518 ASTM C 177/C 518
Operating Temperature Range Flexible to -40 °F (-40°C)	Upper Lower	200°F (93°C) -70°F (-57°C)	
Water Vapor Permeability Dry Cup. Perm-In		<0.06	ASTM E 96
Water Absorption %		<0.20 by volume	ASTM C 209
Flame Spread (up to 1" wall)		Not greater than 25	ASTM E 84
Smoke Developed (up to 1" wall)		Not greater than 50	ASTM E 84
Ozone Resistance		Pass	ASTM D 1171
Chemical/Solvent Resistance		Good	
Mildew Resistance/Air Erosion		Pass	UL 181
UV Weather Resistance		Pass	QUV Chamber Test

Thickness Recommendations* - To Control Condensation								
Pipe Size	Line Temp		Line Temp		Line Temp		Line Temp	
	50°F	10°C	35°F	2°C	0°F	-18°C	-20°F	-29°C
Normal Conditions (Max 85°F, 29°C - 70% R.H.)								
3/8" I.D. thru 1-3/8" I.D.	3/8"	10 mm	1/2"	13 mm	3/4"	19 mm	1"	25 mm
Over 1-3/8"	3/8"	10 mm	1/2"	13 mm	1"	25 mm	1"	25 mm
Mild Conditions (Max 80°F, 26°C - 50% R.H.)								
3/8" I.D. thru 2-1/8" I.D.	3/8"	10 mm	3/8"	10 mm	1/2"	13 mm	1/2"	13 mm
Over 2-1/8"	3/8"	10 mm	3/8"	10 mm	1/2"	13 mm	3/4"	19 mm
Severe Conditions (Max 90°F, 32°C - 80% RH)								
3/8" I.D. thru 1-1/8" I.D.	3/4"	19 mm	3/4"	19 mm	1-1/2"	38 mm	1-1/2"	38 mm
Over 1-1/8" I.D.	3/4"	19 mm	1"	25 mm	1-1/2"	38 mm	1-1/2"	38 mm

*FlexTherm® White Tubular Insulation in thickness noted within the specified temperature ranges will prevent condensation on indoor piping under design conditions defined below. Thickness recommendations above 1" can be sleeved to achieve thickness desired.
 Normal: Maximum severity of indoor conditions seldom exceed 85°F (29°C) and 70% R.H. in United States.
 Mild: Typical conditions are most air-conditioned spaces and arid climates.
 Severe: Generally found in areas where excessive moisture is introduced or in poorly ventilated areas where the temperature may be depressed below the ambient.
 Under conditions of higher humidity, additional thickness of insulation may be required.
 Note: Thickness recommendations calculates using 0.2575 K-factor (0.25 plus 3% test error allowance)

FlexTherm® Pipe Insulation "R" Values				
Pipe O.D. or Nominal Insulation I.D.		R Value 1/2" (13 mm) Wall	R Value 3/4" (19 mm) Wall	R Value 1" (25 mm) Wall
3/8"	10 mm	3.5	5.5	—
1/2"	13 mm	3.3	5.2	—
5/8"	16 mm	3.2	5.3	7.4
3/4"	19 mm	3.0	5.3	7.3
7/8"	22 mm	3.1	5.3	7.0
1-1/8"	29 mm	3.1	5.5	7.1
1-3/8"	35 mm	3.1	5.2	7.2
1-5/8"	41 mm	3.1	5.2	7.1
2-1/8"	54 mm	3.2	5.0	6.8
2-5/8"	67 mm	3.2	4.8	6.5
3-1/8"	79 mm	3.1	4.6	6.2
3-5/8"	92 mm	3.2	4.6	6.0
4-1/8"	105 mm	3.1	4.6	5.9

Note: "R" factors were calculated using a K factor of 0.2575 (0.25 plus 3% test error allowance at 75°F, 24°C mean temp.) and nominal wall thickness in each case. Lower operating temperatures will result in improved R values. Contact Technical Services for specific recommendations.



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