Poly Pipe Insulation

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Job Name _____

Location _____

Engineer _____

Contractor _____

Tag _____ **PO#** _____

Specifications

Polyethylene-based closed cell, flexible foam insulation with a high resistance to moisture vapor intrusion. This insulation also has low thermal conductivity. Sold in carton quantities only.

Applications

For use on hot or cold plumbing lines. For outdoor use, paint with a high quality exterior acrylic latex paint.

Materials

- Polyethylene. Foam

Certifications/Listings/ Approvals

- ASTM C1427 Type I Pipe, Type II Sheet (Specification for Extruded Preformed Flexible Cellular Polyolefin Thermal Insulation in Sheet and Tubular Form.)
- ASTM E84 25/50 rated (to 1-1/2") -tested according to UL 723. NFPA 255, CAN/ULC
- S102.2-18
- UL 94 HF-1 Flammability Classification (#E300774)
- UL Greenguard Gold Certified (#116441-420)
- ASHRAE 90.1 Energy Standard
- International Mechanical Code (IMC)
- International Energy Conservation Code
- (IECC) International Residential Code (IRC
- Contains no halogens
- Fiber Free
- Non-dusting

Semi Slit | **Self-Sealing** | **Self-Sealing Tees & Elbows**

POLY PIPE INSULATION — TECHNICAL DATA

Physical Properties	Poly Pipe Ins	Test Methods	Required	Pass/Fail
Nominal Density, pcf	1.5 +/- 0.5	ASTM D1622		
Specification		ASTM C1427, Type I, Type II	200 (93)	
*Upper Use Limit, °F (°C)	200 (93)	ASTM C411		Pass
Lower Use Limit, °F (°C)	-200 (-129)			Pass
Thermal Conductivity, Btu·in./hr·ft² °F (W/(m·K))				
75°F (24°C) Mean Temp	0.270 (0.039)		<0.35 (0.050)	Pass
100°F (38°C) Mean Temp	0.280 (0.040)		<0.36 (0.051)	Pass
120°F (49°C) Mean Temp	0.295 (0.042)	ASTM C177 OR C518	<0.37 (0.053)	Pass
Water Vapor Permeability	<0.05	ASTM E96	0.05 max	Pass
Water Absorption Max %	<0.20	ASTM C209	% by volume (0.20 max)	Pass
Linear Shrinkage at Max Use Temp (200°F)	-1.2%	ASTM C1427	% change (2.0 max)	Pass
** Flame/Smoke Rating (max)* Up to and including 1-1/2" Thickness	25/50	ASTM E84	25/50	Pass
VOC Content	< 0,22 mg/m³	CDPH Standard Method v 1.2	< 0,5 mg/m³	Pass
Microbial Resistance	Excellent	ASTM G21	No Growth	Pass
Fungi Resistance	Excellent	UL 181	No Growth	Pass
Odor Emission	None	ASTM C1304	None	Pass
Corrosion Resistance (Steel, Copper, AL)	None	ASTM C665	None	Pass
Ozone Resistance (50 mPa)	No Cracks	ASTM D1171	No Cracks	Pass

*Meets the requirements of NFPA 90A/90B when tested at 250°F (125°C)
**Numerical flammability ratings alone may not define the performance of products under actual fire conditions. They are provided only for the use in the selection of products

POLY PIPE INSULATION — THICKNESS RECOMMENDATIONS - TO PREVENT CONDENSATION

Service Temperature	50°F (10°C)			35°F (2°C)			0°F (-18°C)			-20°F (-29°C)		
Pipe Size	Mild	Normal	Severe	Mild	Normal	Severe	Mild	Normal	Severe	Mild	Normal	Severe
3/8" ID to 1-1/8 ID	3/8"	3/8"	3/4"	3/8"	1/2"	3/4"	1/2"	3/4"	--	1/2"	1"	--
1-3/8 ID to 4-1/2" ID	3/8"	3/8"	3/4"	3/8"	3/4"	1"	1/2"	1"	--	3/4"	--	--

Thickness listed for the specified ranges will prevent condensation on indoor piping under the defined design conditions. Normal 85°F and 70% R.H. Mild: Most air conditioned spaces and arid climates: 80°F and 50% R.H. Severe: Areas where excessive moisture is introduced or in poorly ventilated areas where the temperature may be depressed below the ambient: 90°F and 80% R.H.

RANGE

Wall Thickness (nominal)	3/8", 1/2", 3/4", and 1" - (10, 13, 19 and 25mm)
Inside Diameter, Tubular Form	3/8" - 4-1/2" ID - (10mm ID to 114mm ID)
Length of Sections, Tubular Form	6' (1.83m)

POLY PIPE INSULATION — "R" VALUES

Nominal Insulation I.D.	Copper Tube Size Nom. I.D. plumbing	Copper Tube Size O.D. (HVAC/R)	PS Nominal	3/8"	1/2"	3/4"	1"	1-1/2"
3/8"	1/4"	3/8"	1/8"	2.6	3.5	5.5	8.4	
1/2"	3/8"	1/2"	1/4"	2.5	3.3	5.2	7.9	
5/8"	1/2"	5/8"	3/8"	2.9	3.2	5.3	7.4	
3/4"	5/8"	3/4"	1/2"	2.3	3.0	5.3	7.3	
7/8"	3/4"	7/8"	--	2.2	3.1	5.3	7.0	
1"	--	--	3/4"	2.2	3.1	5.2	7.2	
1-1/8"	1"	1-1/8"	--	2.2	3.0	5.4	6.9	11.3
1-1/4"	1-1/8"	1-1/4"	--	2.2	3.2	5.3	6.8	
1-3/8"	1-1/4"	1-3/8"	1"	2.1	3.2	5.1	7.2	10.8
1-5/8"	1-1/2"	1-5/8"	1-1/4"	2.4	3.0	5.0	6.9	10.4
2"	--	--	1-1/2"	2.3	2.9	4.8	6.6	
2-1/8"	2"	2-1/8"	--	2.3	2.9	4.8	6.5	
2-3/8"	--	--	2"	2.3	2.9	4.7	6.4	
2-5/8"	2-1/2"	2-5/8"	--	2.2	3.0	4.6	6.2	
2-7/8"	--	--	2-1/2"	2.2	3.0	4.5	6.1	
3-1/8"	3"	3-1/8"	--	2.2	3.0	4.5	6.1	
3-1/2"	--	--	3"	2.3	3.0	4.5	6.0	
3-5/8"	3-1/2"	3-5/8"	--	2.3	3.1	4.5	6.0	
4-1/8"	4"	4-1/8"	--	2.2	3.1	4.5	5.8	
4-1/2"	--	--	4"	2.3	3.1	4.6	5.9	