IMCOA®

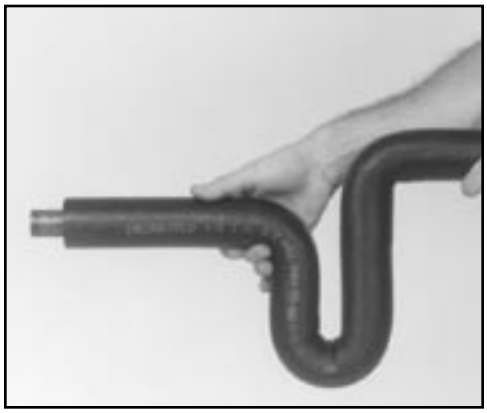
IMCOLOCK®
ARCTICTHERM®

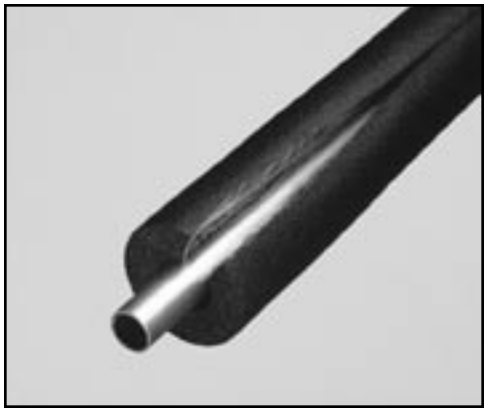
Factory Mutual System

- Thermal Conductivity
- Water Vapor Transmission
- Combustion Properties

Made in America

The Recognized Leader in Engineered Polymer Foam Insulation Technology™





IMCOLOCK: Supplied with PSA closure system

ARCTICTHERM: White; same features as Imcolock

Features & Benefits

- Meets requirements of ASTM C 1427
- Water vapor transmission rate of 0.0 perm-in
- Working temperature range of -330°F to +210°F
- Flame spread rating of not greater than 25 and a smoke density rating of not greater than 50 when tested in accordance with ASTM E 84
- Broad range of chemical resistance
- Non-porous, fiber free and resistant to mold growth
- Halogen free — non-corrosive to piping
- Can be directly buried underground (please consult a sales representative for proper applications)

Flame and Smoke Rating

All IMCOA polyolefin insulation products through 1" thickness meet ASTM E 84 flame spread rating of not greater than 25, and smoke developed rating of not greater than 50. IMCOA polyolefin insulation products are acceptable for use in duct/ plennum applications meeting the requirements of NFPA 90A.

IMCOLOCK and ARCTICTHERM are produced in 6 foot lengths in the following sizes:

Nominal Wall Thickness	Pipe Size	Pipe Type
3/8", 1/2", 3/4", & 1"	3/8" - 4-1/2"	IMCOLOCK
3/8", 1/2", 3/4", & 1"	3/8" - 4-1/2"	ARCTICTHERM

Applications

- Chilled water systems
- Halogen refrigeration systems
- Ammonia refrigeration systems
- Glycol refrigeration systems
- Humidifier piping
- Plenums and air ducts
- Condensate drain lines
- Residential hot & cold water
- Underground piping
- Tanks and vessels
- Cryogenic systems

* For high abuse areas, a protective jacketing (PVC) should be used. Coatings do not adhere well to polyolefin insulation.

Technical Data

IMCOLOCK and ARCTICTHERM are closed-cell polyolefin insulation products that answer the demands and problems of modern plumbing, HVAC, and refrigeration applications. Meets requirements of ASTM C 1427. Should additional information on these or other products be needed, please call or fax your inquiry to the numbers listed below.

Physical Characteristics	Units	Properties	Testing Methods
Maximum Operating Temperature	°F	210	ASTM C 411
Minimum Operating Temperature	°F	-330	
Color		Black/White	
Density	lbs/ft³	1.5	ASTM D 1622, ASTM D 3575
Water Vapor Permeability	Perm-in	0.0	ASTM E 96
Water Absorption	% by Vol.	0.0	ASTM C 209
Linear Shrinkage @ 200°F	%	less than 4.0	ASTM C 1427
Mold Growth/Humidity; Air Erosion		None	UL 181, Sections 12 & 17
Flame Spread (up to 1" wall)		not greater than 25	ASTM E 84 CAN/ULC-S102.2-M88
Smoke Density (up to 1" wall)		not greater than 50	ASTM E 84 CAN/ULC-S102.2-M88
Thermal Conductivity @ 75°F	Btu-in/hr-ft²-°F	0.25	ASTM C 177, ASTM C 518

Specification Compliance ASTM C 1427, NFPA 90 A/B.

- Factory Mutual Research Corporation, Approved and Listed in Approval Guide
- New York City Department of Buildings, MEA #363-95-M
- City of Los Angeles, General Approval, Research Report RR 8316
- Dade County, Florida, Product Control Approved, Acceptance No. 95-1215.08

Pipe "R" Values per square foot

Pipe O.D. or Nominal Insulation I.D.		R Value 3/8" (10 mm) Wall	R Value 1/2" (13 mm) Wall	R Value 3/4" (19 mm) Wall	R Value 1" (25 mm) Wall
3/8"	10 mm	2.5	3.6	6.0	8.8
1/2"	13 mm	2.3	3.3	5.5	8.0
5/8"	16 mm	2.2	3.1	5.2	7.5
3/4"	19 mm	2.1	3.0	4.9	7.1
7/8"	22 mm	2.0	2.9	4.7	6.8
1-1/8"	29 mm	1.9	2.7	4.4	6.5
1-3/8"	35 mm	1.9	2.6	4.2	6.1
1-5/8"	41 mm	1.8	2.5	4.1	5.8
2"	50 mm	1.8	2.4	3.9	5.5
2-1/8"	54 mm	1.7	2.4	3.9	5.5
2-3/8"	60 mm	1.7	2.4	3.8	5.3
2-5/8"	67 mm	1.7	2.3	3.7	5.2
2-7/8"	72 mm	1.7	2.3	3.7	5.1
3-1/8"	79 mm	1.7	2.3	3.6	5.1
3-1/2"	89 mm	1.7	2.3	3.6	5.0
3-5/8"	92 mm	1.6	2.3	3.5	4.9
4-1/8"	105 mm	1.6	2.2	3.5	4.8
4-1/2"	115 mm	1.6	2.2	3.5	4.8

Note: "R" factors were calculated using a K factor of .250 (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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