

**EPDM Pipe & Duct Insulation** 





# **AEROFLEX®-EP**

FM Approved EPDM Pipe & Duct Insulation

HVAC | VRF | Chilled Water | Refrigeration Hot and Cold Water Piping

Closed-cell elastomeric foam pipe and duct insulation that conserves energy and controls condensation for projects that require FM Approval.

Meets minimum pipe insulation thickness and minimum R-value requirement of the International Energy Conservation Code® (IECC®) and ASHRAE 90.1. Energy Standard. To meet minimum R-value, insulation thickness may increase above the minimum thickness per IECC and 90.1.

Available in tubes (standard & self-seal) and sheets/ rolls (standard, no PSA). See back cover.

# Fast, simple to install

Self-Seal and standard unslit pipe insulation available up to 6" IPS and 2" thick.

Self-Seal tubes reduce installation time.

Built-in vapor retarder - No supplemental vapor barrier required for most applications.\*

## Superior environmental stability

Nonpolar - does not induce or react with water

Low thermal conductivity - reduced insulation thicknesses

Greater UV resistance than NBR/PVC insulation

Non-corrosive on stainless steel & copper piping

Suitable for interior & exterior applications\*\*

## Safe for indoor environments

Certified to meet FM Approval, Class of Work, Standard FM 4924 Pipe & Duct Insulation

No CFCs, HFCs, HCFCs, PBDEs, formaldehyde, nitrosamine or fibers

Naturally mold-resistant: no biocides required

Ultra-low PVC content – less than 1%



#### AEROFLEX EPDM<sup>™</sup> insulation system solutions (only Aeroseal Adhesive is FM Approved)





# Aerofix®

Light-weight, rigid pipe supports, pre-insulated with high-density, load-bearing closed-cell foam and encased with zero-perm EPDM polymer membrane. Includes built-in pressure sensitive Protape<sup>®</sup> closure system.

#### **Protape**®

Zero-perm EPDM-based, self-adhering rubber tape for sealing glued insulation seams and termination points.

# **AEROFLEX®** Adhesives

Specially formulated adhesives for bonding and vapor-sealing AEROFLEX EPDM<sup>™</sup> insulation. Fast tack and LVOC formulations available.



#### **Aerocoat**®

Premium insulation coating specially formulated for AEROFLEX EPDM<sup>™</sup> insulation to provide UV protection for exterior applications and as a decorative finish.

\*Supplemental vapor barrier may be required in extreme lowtemperature or high-humidity applications. Protective jacket required for direct-bury applications and if insulation may be subjected to mechanical damage.

\*\*For exterior applications, Aerocoat<sup>®</sup>, Aerocoat LVOC<sup>®</sup>, or an insulation jacket are recommended for UV protection to maximize the insulation's life cycle.

Standard Specification: ASTM C534, Type I & II, Grade 1, FM Class: 4924

## Installation Instructions:



# Thermal Conductivity (K) Btu-in/hr-Ft<sup>2</sup> -°F (W/m.K)

Mean Temperature	K Value	Test Method
50°F (10°C)	0.257 (0.037)	
75°F (24°C)	0.266 (0.038)	
100°F (38°C)	0.276 (0.040)	
125°F (52°C)	0.283 (0.041)	ASTM C177/C518
150°F (66°C)	0.290 (0.042)	
200°F (93°C)	0.304 (0.044)	
250°F (121°C)	0.329 (0.047)	

### **Physical and Operational Properties**

Property	Test Value/Rating	Test Method
Service Temperature, CONTINUOUS	-70°F to 257°F	ASTM C411
	-57°C to 125°C	ASTM C41
Ozone Resistance	No cracking	ASTM D1171
Water Vapor Permeability, Max	< 0.10 (1.45 x 10[-10 power] g/Pa.s.m)	ASTM E96
Water Absorption (% by Volume), Max	0.2%	ASTM C209/C1763
Surface Burning/Flammability (through 2" thick)	FM Approval ID: PR465702	FM Approvals, Standard 4924
	Pass	UL94 V-0
Linear Shrinkage	< 7.0%	ASTM C534

<sup>1</sup> AEROFLEX EPDM<sup>™</sup> flexibility begins to decrease at -70°F and below. This does not impact the insulating properties of the material.

## Additional Approvals, Certifications & Compliance

ASTM D1056, 2C1	Standard Specification for Flexible Cellular Materials-Sponge or Expanded Rubber
ANSI/ASHRAE/ICC/USGBC/IES Standard 189.1	International Green Construction Code® (igCC®)
ANSI/ASHRAE/IES Standard 90.1	Energy Standard for Buildings Except Low-Rise Residential Buildings
Buy American	Buy American, Federal Acquisition Regulation, FAR 52.225 Buy American
CA Title 24	California Building Energy Efficiency Standards
IECC <sup>®</sup>	International Energy Conservation Code®
REACH	European Chemicals Agency (ECHA) - Registration, Evaluation, Authorization and Restriction of Chemicals
RoHS	European Union - Restriction of Hazardous Substances















AEROFLEX®-EP Standard Unslit and Self-Seal Pipe Insulation R-Values (75°F / 24°C mean temperature)					
Pipe Size	IPS	Thickness (in)			
(inches)	(inches)	1/2	1	1-1/2	2
1/4		3.7*	9.3	15.6*	
3/8	1/8	3.3	8.4	14.1	22.6
1/2	1/4	3.1	7.7	13.0	20.7
5/8	3/8	2.9	7.4	12.4	19.4
3/4		2.8	7.1	11.8	18.6
7/8	1/2	2.9	6.8	11.9	17.5
1-1/8	3/4	2.8	6.4	11.1	16.3
1-3/8	1	2.8	6.1	10.5	15.3
1-5/8	1-1/4	2.7	5.8	10.2	15.0
1-7/8	1-1/2	2.7	5.6	9.8	14.3
2-1/8		2.8	5.5	9.6	13.9
2-3/8	2	2.7	5.3	9.4	13.5
2-5/8		2.7	5.3	9.1	13.2
2-7/8	2-1/2	2.7	5.1	8.9	12.8
3-1/8		2.6	5.1	8.8	12.6
3-1/2	3	2.7	5.0	8.6	12.2
3-5/8		2.7	5.0	8.5	12.2
4-1/8	3-1/2	2.7	4.9	8.3	11.8
4-1/2	4	2.7	4.8	8.2	11.6
5-1/8			4.7	8.0*	11.3*
5-1/2	5	2.6	4.7	7.9	11.1
6-1/8		2.6	4.6	7.7	10.9
6-5/8	6	2.6	4.6	7.7	10.7

AEROFLEX®-EP Sheet & Roll Insulation R-Values (75°F / 24°C mean temperature)				
Wall Thickness (inches)	1/2	1	1-1/2	2
R-Value	2.1	4.0	6.1	8.0

\* Standard unslit tube only

**NOTE:** The International Energy Conservation Code<sup>®</sup> (IECC<sup>®</sup>) and ASHRAE 90.1. Energy Standard require pipe insulation to meet either a minimum thickness or as an option minimum R-value (not both). Minimum thickness or R-value is determined by the authority having jurisdiction (federal, state, or local).

To meet minimum R-value, insulation thickness may increase above the minimum thickness specified by IECC and 90.1.

AEROFLEX EPDM<sup>™</sup> pipe insulation thicknesses and R-values meet the minimum requirements of International Energy Conservation Code (IECC) and ASHRAE 90.1. Energy Standard.

Click <u>here</u> to learn more.

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