

# Aerocel® Standard EPDM Insulation



## PRODUCT

Aerocel® Standard EPDM Insulation for use in refrigeration and HVAC applications. Meets 25/50 Fire and Smoke rating and has a working temperature range from -70°F to 300°F (-57°C to 149°C).

## INSULATION SPECS

**Material:** Low-density EPDM closed cell elastomeric foam, CFC and HCFC gas free.

**Thermal Conductivity:** 0.235 (BTU \* in/h \*ft<sup>2</sup> \* °F) at 75°F.

**Water Vapor Permeability:** <0.03 perm-in. (4.38 x 10<sup>-11</sup>g/Pa\*s\*m) per ASTM E96.

**Water Absorption:** <0.2% by volume per ASTM C 209.

**Working Temperature:** -70 °F to 257 °F (-57 °C to 125 °C) continuous per ASTM C 411.

**Surface Burning Characteristics:** Meets 25/50 Flame-Spread/Smoke-Generated per UL 723 and ASTM E84. Additionally meets UL-94 5 V-A, V-0 and is self-extinguishing per ASTM D 635.

**UV Resistant:** EPDM provides UV Resistance in accordance with ASTM G7/G90.

**Ozone Resistant:** Meets ASTM D 1171.

**Length:** Available in 6' sections.

**Color:** Black

**Thickness:** 1/2", 3/4", 1", 1-1/2", and 2" available.

## SPECIAL FEATURES

**ASTM E84 (25/50) compliant:** Flame-Spread index under 25 and Smoke Development Index under 50 (tested according to ASTM E84).

**Ozone Resistant:** Provides ozone resistance in accordance with ASTM D 1171.

**Non-Polar:** Non-Corrosive to copper and stainless steel and helps repel water vapor.

NOTE: Quantities are estimates only. Contractor is responsible for quantities required on project.

Length (ft)	Product #	Tube Size	Insulation Thickness	R Value	Length (ft)	Product #	Tube Size	Insulation Thickness	R Value	Length (ft)	Product #	Tube Size	Insulation Thickness	R Value
	298-AC1412	1/4"	1/2"	4.1		498-AC1410	1/4"	1"	10.1	N/A	N/A	1/4"	2"	24.6
	300-AC3812	3/8"	1/2"	3.6		500-AC3810	3/8"	1"	8.9		662-AC3820	3/8"	2"	21.9
	302-AC1212	1/2"	1/2"	3.4		502-AC1210	1/2"	1"	8.2		663-AC1220	1/2"	2"	20.2
	304-AC5812	5/8"	1/2"	3.2		504-AC5810	5/8"	1"	7.7		664-AC5820	5/8"	2"	18.9
	306-AC3412	3/4"	1/2"	3.0		506-AC3410	3/4"	1"	7.3		665-AC3420	3/4"	2"	17.9
	308-AC7812	7/8"	1/2"	2.9		508-AC7810	7/8"	1"	7.0		666-AC7820	7/8"	2"	17.1
	310-AC11812	1-1/8"	1/2"	2.8		510-AC11810	1-1/8"	1"	6.5		667-AC11820	1-1/8"	2"	15.9
	312-AC13812	1-3/8"	1/2"	2.6		512-AC13810	1-3/8"	1"	6.2		668-AC13820	1-3/8"	2"	15.0
	314-AC15812	1-5/8"	1/2"	2.6		514-AC15810	1-5/8"	1"	5.9		669-AC15820	1-5/8"	2"	14.3
	318-AC21812	2-1/8"	1/2"	2.5		518-AC21810	2-1/8"	1"	5.6		671-AC21820	2-1/8"	2"	13.2
	398-AC1434	1/4"	3/4"	6.9		631-AC14112	1/4"	1-1/2"	17.0					
	400-AC3834	3/8"	3/4"	6.2		632-AC38112	3/8"	1-1/2"	15.1					
	402-AC1234	1/2"	3/4"	5.7		633-AC12112	1/2"	1-1/2"	13.9					
	404-AC5834	5/8"	3/4"	5.3		634-AC58112	5/8"	1-1/2"	13.0					
	406-AC3434	3/4"	3/4"	5.0		635-AC34112	3/4"	1-1/2"	12.3					
	408-AC7834	7/8"	3/4"	4.8		636-AC78112	7/8"	1-1/2"	11.8					
	410-AC11834	1-1/8"	3/4"	4.5		637-AC118112	1-1/8"	1-1/2"	10.9					
	412-AC13834	1-3/8"	3/4"	4.3		638-AC138112	1-3/8"	1-1/2"	10.3					
	414-AC15834	1-5/8"	3/4"	4.2		639-AC158112	1-5/8"	1-1/2"	9.9					
	418-AC21834	2-1/8"	3/4"	4.0		641-AC218112	2-1/8"	1-1/2"	9.2					

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## Important Installation Notes

### GENERAL

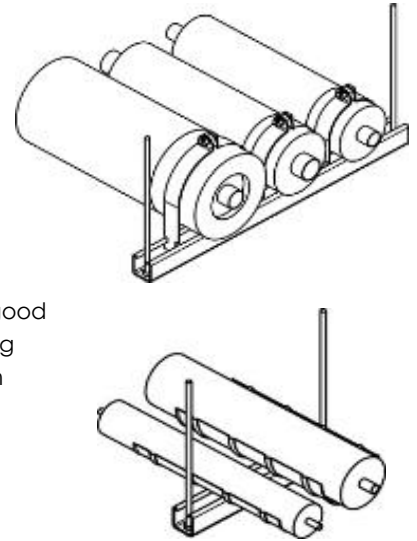
- 1) Refer to Aeroflex USA's website (<https://www.aeroflexusa.com/>) for additional information
- 2) Refer to Reftekk's website (<http://www.reftekk.com>) for additional information
- 3) Install insulation with the mindset to **KEEP THE PIPE DRY**
- 4) Install carefully and avoid tearing or crushing the insulation during installation
- 5) Do NOT allow the insulation to be crushed by unistrut, wire, straps, or wire ties
- 6) Recommended to not insulate over joints until finished pressure testing and ensuring a leak-free system

### SELECTING INSULATION THICKNESS(ES)

- 1) Thickness of insulation must be chosen as the thickest requirement from the following criteria:
  - Equipment manufacturers' installation instructions
  - Code requirements (specifically city/county/state/federal adopted energy codes)
  - Calculated minimum thickness required to prevent condensation on outside of insulation
    - Important: See note below if using saddle supports
  - Engineering specifications

### SUPPORT

- 1) Support the piping and space the supports per local code requirements
- 2) Support using Cush-A-Therm supports (prior to insulating)
  - If Cush-A-Therm supports are not possible and saddle supports are used instead, the insulation will compress at these locations, and condensation may occur if the compressed insulation thickness is less than that required to prevent condensation. A good "rule of thumb" is to assume the insulation will compress 50% over time. Therefore, if using saddle supports, the installed insulation thickness should be at least twice the minimum thickness for what is required to prevent condensation.
    - Do **NOT** use saddle supports vertically or outdoors



### SEALING

- 1) **KEEP THE PIPING SYSTEM DRY**
- 2) Repair any tears in the insulation with Aeroflex Aero seal contact cement and cover with Aeroflex Protape
- 3) All seams & joints must be sealed w/ Aeroflex Aero seal contact cement
  - When using Aero seal contact adhesive, recommended that the joint be taped with Aeroflex Protape
- 4) All seams and joints must be water and vapor tight
- 5) Seal all insulation terminations at valves and equipment to be vapor tight
- 6) Wet seal the insulation to the tubing at equipment terminations
- 7) Wet seal the insulation to the tubing every 12 to 18 feet
- 8) The insulation **MUST** be sealed to prevent rain or condensation from reaching the tube