

# AEROCEL<sup>®</sup>

## WHITE/GRAY 25/50

closed cell elastomeric thermal insulation for HVAC & R

### General

**AEROCEL<sup>®</sup> WHITE/GRAY 25/50** Tubular Insulation is a flexible, closed cell and light weight EPDM\*-based elastomeric material designed for insulating liquid cooling and heating lines. 1/2", 3/4" and 1" wall, in popular I.D. through 4 1/8". The closed-cell structure of Aerocel Pipe Insulation makes it an efficient insulation.

Aerocel White/Gray 25/50 is manufactured to consistently provide actual values on these key performance criteria for mechanical system insulation:

**Thermal Conductivity:** 0.25

**Water Vapor transmission:** 0.1

**Fire Rating:** Will not contribute significantly to fire (simulated end-use testing).

Aerocel White/Gray 25/50 Pipe Insulation, in 1/2", 3/4" and 1" thicknesses has a flame spread rating of 25 or less and a smoke developed rating of 50 or less as tested by ASTM E 84 "Surface Burning Characteristics of Building Materials."

**Note:** Numerical flammability ratings alone may not define the performance under actual fire conditions. They are provided only for use in the selection of products to meet limits specified.

### Key Features

- Low Vapor Permeance
- Low thermal conductivity
- Easy to install
- 25/50 rated
- Versatile, for heating, AC, refrigeration, plumbing

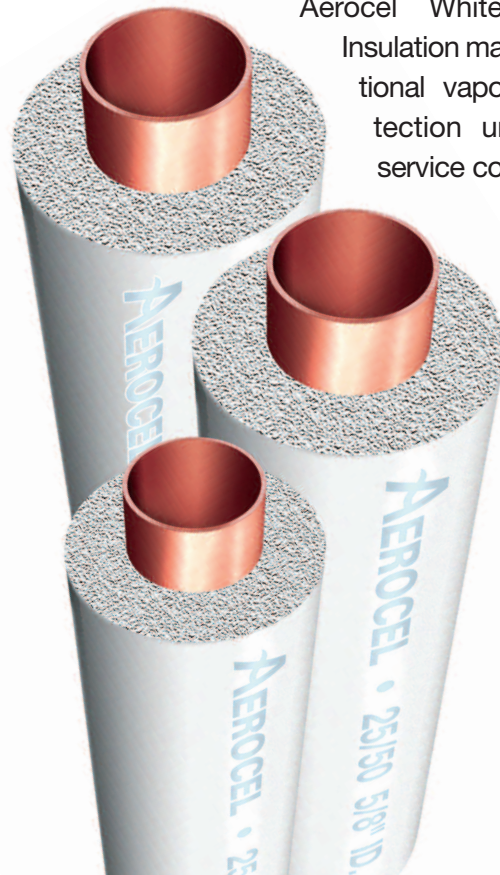
### Uses

**AEROCEL<sup>®</sup> WHITE/GRAY 25/50** Pipe Insulation is used to retard heat gain or loss, and to control condensation formation on cold-water plumbing, chilled water, and refrigeration lines. The material also efficiently reduces heat flow on hot water plumbing, liquid heating and dual-temperature piping systems. The recommended temperature usage range for Aerocel Pipe Insulation is -297°F to +257°F.

### Resistance to Moisture Vapor Flow

The closed-cell structure of Aerocel White/Gray 25/50 Insulation effectively retards the flow of moisture vapor, and Aerocel White/Gray 25/50 is considered a low transmittance vapor retarder. Aerocel White/Gray 25/50 requires no supplemental vapor-retarder protection under normal service conditions.

Aerocel White/Gray 25/50 Insulation may require additional vapor barrier protection under extreme service conditions.



## Application

**AEROCEL® WHITE/GRAY 25/50** Pipe Insulation in unslit tubular form can be slipped onto piping before it is connected, or it can be slit lengthwise and snapped over piping already connected. Butt joints and seams are to be sealed with contact adhesive. Both surfaces to be joined are coated with adhesive. Aerocel White/Gray 25/50 is designed for installation indoors, with no additional protective finish required. Additional UV protection is required when product is installed outdoors.

In addition to the specifications listed below, Aerocel White/Gray 25/50 also conforms to the following: ASTM C 534, NY City MEA #171-04-M, City of LA RR-8413, UL 181 Section 12 Mold Growth/Humidity, ASTM G 21 Fungal Resistance Test, UL 181 Section 17 Air Erosion, NFPA 90A & 90B, MIL 15280J.

## Specifications

PHYSICAL PROPERTIES		AEROCEL				TEST METHOD	
CELL STRUCTURE		CLOSED CELL				-	
DENSITY Lbs/ft <sup>3</sup> (qm/cm <sup>3</sup> )		3/6 Lbs/ft <sup>3</sup>				ASTM D 1667	
THERMAL CONDUCTIVITY	Mean temp.	-4°F (-20°C)	32°F (0°C)	75°F (24°C)	90°F (32°C)	104°F (40°C)	ASTM C177
	K-value	0.22	0.23	0.25	0.26	0.27	
SERVICE TEMP		-297°F to 257°F -57°C to +125°C				AEROCEL loses flexibility at -70°F. This does not affect the insulating properties of the material.	
Water Vapor Permeability		0.10 perm-in (0.15 x 10 <sup>-12</sup> )				ASTM E 96	
Water Absorption (weight %)		Less than 5%				ASTM D 1056	
Flammability,		UL-94 5 V-A, V-O				File E228536	
Smoke Density		25/50				ASTM E84	
Through 1" wall		Self extinguishing				ASTM D 635	
Corrosion of copper, stainless		Non corrosive				DIN 1988	
Nitrosamine Contents		Not detected				U.S. FDA	
Flexibility		Excellent				ASTM C 534	

## AEROCEL® WHITE/GRAY 25/50 Thickness Recommendation Data

Pipe Size	Line Temp. 60°F (15.5°C)	Line Temp. 50°F (10°C)	Line Temp. 35°F (1.7°C)	Line Temp. 0°F (-18°C)
3/8" ID Thru 3" IPS Over 3" IPS	Based on Normal Condition Max. 85°F (29.4°C) 70% RH *			
	1/4" 3/8"	3/8" 1/2"	1/2" 3/4"	1" 1-1/4"
3/8" ID Thru 3" IPS Over 3" IPS	Based on Mild Condition Max. 80°F (26.6°C) 50% RH			
	1/4" 3/8"	3/8" 1/2"	3/8" 3/4"	3/4" 3/4"
3/8" ID Thru 3" IPS Over 3" IPS Thru 10" IPS Over 10" IPS	Based on Severe Condition Max. 90°F (32.2°C) 80% RH			
	1/2" 3/4" 3/4"	3/4" 1" 1"	1" 1-1/8" 1-1/8"	1-1/2" 1-3/4" 2"
	Based on Extremely Severe Condition Max. 90°F (32.2°C) 85% RH			
3/8" D Thru 3" IPS Over 3" IPS Thru 10" IPS Over 10" IPS	3/4" 1" 1"	1" 1-1/4" 1-1/4"	1-1/4" 1-1/2" 1-1/2"	2" 2-1/2" 2-1/2"

\* Although in some areas of the country, 1/4" and 3/8" wall thicknesses are recommended, Aeroflex USA recommends 1/2" minimum wall thickness for optimum performance



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