SUBMITTAL

AEROCEL®

EPDM SHEET

Aerocel® EPDM Elastomeric Sheet Insulation is a flexible closed cell and lightweight elastomeric material with a smooth and durable surface, designed for insulating large pipes, tanks, vessels, air ducts, inside air handling panels and more. It is available in 3' x 4' flat sheets and rolls in thicknesses of 1/8", 1/4", 3/8", 1/2", 5/8", 3/4", 1", 1-1/4", 1-1/2" and 2".

Air Duct Systems

Besides being the ideal insulation for many kinds of piping systems and equipment, Aerocel® is also used as insulation for all kinds of HVAC ducting systems, including supply, return and intake air. Aerocel® EPDM Elastomeric Sheet is an excellent choice for insulating duct work, both internally lined and externally wrapped. Aerocel® has been favored over fibrous insulating materials mainly because of the possible dangers and health concerns with the use of fibrous materials. Aerocel®, made from special modified elastomeric material, ensures a long service life and can be safely handled without any concern of skin irritation. It is also not hazardous to health, so no special precautions are needed for application or service. Aerocel® offers superior resistance to moisture, fungus growth, vermin and rodent attack. Clean and easy to install, it offers a neat installed appearance because of its smooth surface.

Aerocel® sheet also meets the standards stated in UL 181 for mold growth/humidity, air erosion and passes ASTM G 21 Fungal Resistance. See the complete line of specifications listed on back of this page.

Key Features:

- **UV Resistant**
- **Low Thermal Conductivity**
- **Easy to install**
- **25/50 rated through 2" wall**
- **Fiber Free**

Application

AEROCEL® EPDM elastomeric sheet is flexible and easy to use for a wide variety of jobs including large OD pipes, tanks, vessels, air ducts and inside air handling panels. When used in duct lining applications, SMACNA duct lining practices are to be used for gluing and pinning Aerocel® to the sheet metal. An ASTM C 916 compliant duct liner adhesive** is to be used. Different adhesives will yield different performance characteristics when holding Aerocel® to sheet metal. Pins that mechanically attach or adhere to the sheet metal, and have a shank equal to the thickness of the insulation must be used. Weld-type fasteners are not to be used.

In addition to the specifications listed below, Aerocel® EPDM sheet also conforms to the following standards or holds the following approvals/acceptances: ASTM C 534 Type II, ASTM C 1534 Type I, ASTM G 21 Fungal Resistance, UL 181 Section 12 Mold Growth/Humidity, UL 181 Section 17 Air Erosion, NY City MEA #171-04-M, City of LA RR-8413, NFPA 90A & 90B, CAN/ULC-S102-07, and MIL 15280J.

Aerocel Sheet insulation meets the energy savings requirements of International Energy Conservation Code (IECC) and ASHRAE of R-4 at 1" wall thickness.

Aerocel EPDM Elastomeric Sheet Insulation has inherent Microbial Resistance based on the standard composition of this superior insulator.

Specifications

PHYSICAL PROPERTY	RESULT	TEST METHOD
Apparent Thermal Conductivity	0.245 k-Value	ASTM C 177 / C 518
Surface Burning Characteristics, Through 2" Thick	Flame Spread – 25 Max. Smoke Dev. – 50 Max.	ASTM E 84
	UL 94 5V-A, V-O	UL File E228536
	Self-Extinguishing	ASTM D 635
Service Temperature, CONTINUOUS	-297°F to +300°F -57°C to +149°C	ASTM C 411
Water Vapor Sorption	0.00% max.	ASTM C 1104
Water Absorption	0.2% max	ASTM C 209
Water Vapor Permeability	.03 perm (4.38 x 10-11)	ASTM E 96
Dimensional Stability	7% max.	ASTM C 356
Odor Emission	Pass	ASTM C 1304
Corrosiveness	Pass	ASTM C 665/C 692/DIN 1988
Fungi/Resistance	No Growth	ASTM C 1338/G 21/ UL181
Erosion Resistance	Pass	ASTM C 1071/UL181
UV Resistance	Good	ASTM G 7/ G 90
Ozone Resistance	No Cracking	ASTM D 1171
Nitrosamine Content	None Detected	U.S. FDA CPG No. 7117.11 BSEN 12868
Noise Reduction Coefficient	½" thick - .20 1" thick - .35	ASTM C 423

Thickness	3/8"	1/2"	3/4"	1"	1-1/2"	2"
R-value	1.5	2	3.1	4.1	6.1	8.2

Sound Absorption Coefficients, ASTM C423 Type "A", Mounting Practice E 795							
Frequency, Hz	125	250	500	1000	2000	4000	NRC
Type I: 1⁄2 in. (13 mm)	0.03	0.06	0.08	0.27	0.47	0.23	0.20
1 in. (25 mm)	0.15	0.10	0.31	0.57	0.36	0.40	0.35

** Acceptable Adhesives for Duct Lining – MEI 22-24 Eco-Spray N.F. Adhesive and Foster® 85-65™ STIC-FAS™ ADHESIVE

Aerocel can work efficiently as an insulation and sound dampening material internally and externally.

Air Duct Systems

Aerocel® sheet makes an ideal choice for HVAC duct systems because it is a low density, light weight product that also serves as an efficient acoustical absorber and an excellent thermal insulator. With low moisture absorption and low water vapor transmission, Aerocel can be used both as an internal and external insulation for all kinds of ducting systems.

To suit different decorative purposes, Aerocel® can also be coated with Aerocoat, acrylic latex emulsion paint.

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