



# Zialoc Z-Flex - Closed Cell EPDM Sheet & Roll Insulation

This material is a closed-cell elastomeric foam insulation, available in sheets and rolls. This product reduces both structure-borne sound and air-borne sound. The proprietary blend of nonpolar EPDM rubber is key to consistent, long-lasting thermal performance and protection against moisture and environmental stresses.

TBP has the ability to laminate with adhesive, cut to shape, and create custom kits for ease of assembly. Most thicknesses are available with or without pressure-sensitive adhesive backing.

## Benefits:

- Available with acrylic pressure sensitive adhesive (PSA) back
- Low thermal conductivity – reduced insulation thicknesses
- Built-in vapor retarder – No supplemental vapor barrier required for most applications
- Superior environmental stability
- Nonpolar – does not induce or react with water
- Greater UV resistance than NBR/PVC insulation
- Non-corrosive on stainless steel and copper piping
- Suitable for interior and exterior applications
- Attenuates lower frequency mechanical noise
- Superior fire safety – 25/50 rated (ASTM E84, UL723, CAN/ULC-S102), NFPA 90A/90B and self-extinguishing (ASTM D635) thru 2-inch thick
- GREENGUARD Gold Certified for low chemical emissions
- No CFCs, HFCs, HCFCs, PBDEs, formaldehyde, nitrosamine or fibers
- Ultra-low PVC content – less than 1%
- Naturally mold-resistant with a smooth, cleanable surface

## Applications:

- HVAC
- Refrigeration
- Chilled Water
- Equipment
- Duct Wrap
- Hot and Cold Water Piping



### ZIALOC Z-FLEX EPDM ROLL INSULATION (48" WIDE) R-VALUES

Wall Thickness (Inches)	1/8	1/4	3/8	1/2	5/8	3/4	1	1-1/4	1-1/2	2	2-1/2	3
R-Value	0.5	1.1	1.7	2.2	2.6	3.3	4.2	5.3	6.4	8.4	10.5	-

### ZIALOC Z-FLEX EPDM SHEET INSULATION (36" X 48") R-VALUES

Wall Thickness (Inches)	1/8	1/4	3/8	1/2	5/8	3/4	1	1-1/4	1-1/2	2	2-1/2	3
R-Value	0.5	1.1	1.7	2.2	2.6	3.3	4.2	5.3	6.4	8.4	10.5	12.6



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

MEAN TEMPERATURE	K VALUE	TEST METHOD
50°F (10°C)	0.237 (0.0342)	ASTM C177/C518
75°F (24°C)	0.245 (0.0353)	
100°F (38°C)	0.252 (0.0363)	
125°F (52°C)	0.260 (0.0375)	
150°F (66°C)	0.267 (0.0385)	
200°F (93°C)	0.282 (0.0406)	
250°F (121°C)	0.315 (0.0454)	

## ADDITIONAL APPROVALS, CERTIFICATIONS, AND 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
California Specification 01350	OC Emissions, Standard Method v1.2
EPA	Toxic Substances Control Act (TSCA) Persistent, Bioaccumulative, and Toxic (PBT) Chemicals, Per- and Polyfluoralkyl Substances (PFAS)
IECC®	International Energy Conservation Code®
LEED®	U.S. Green Building Council - Leadership in Energy and Environmental Design
MEA #171-04-M	City of New York Material and Acceptance Pipe Insulation
REACH	European Chemicals Agency (ECHA) - Registration, Evaluation, Authorization and Restriction of Chemicals
RoHS	European Union - Restriction of Hazardous Substances

## PHYSICAL AND OPERATIONAL PROPERTIES

PROPERTY	TEST VALUE/RATING	TEST METHOD
Service Temperature, CONTINUOUS	297°F to 257°F [-183°C to 125°C] -22°F to 248°F [-30°C to 120°C] PSA	ASTM C4111
UV Resistance	Minimal Cracking or color change	ASTM G7
Ozone Resistance	No cracking	ASTM D1171
Water Vapor Permeability, Max	0.02 perm-inch (4.38 x 10 <sup>-11</sup> g/Pa.s.m)	ASTM E96
Water Absorption (% by Volume), Max	0.2%	ASTM C209/C1763
Surface Burning/Flammability (through 2" thick)	Pass	UL94 V-0
	25/50	ASTM E84, UL723, CAN/ULC-S102
	Pass	NFPA 90A/90B
	Self-extinguishing	ASTM D635
VOC Emissions	< 0.5 mg/m <sup>3</sup>	CDPH Standard Method v1.2
Corrosion of Stainless Steel	Non-corrosive	ASTM C692, DIN 1988
Fungi Resistance	No Growth	ASTM C1338/G21

## POTENTIAL LEED® CREDIT CONTRIBUTIONS

Energy & Atmosphere (EA)	Prerequisite: Minimum Energy Performance Credit: Optimize Energy Performance
Materials & Resources (MR)	Credit: Building Product Disclosure and Optimization - Environmental Product Declarations (EPD), Product Specific Type III Credit: Building Product Disclosure and Optimization - Material Ingredients, verified HPD
Indoor Environmental Quality (EQ)	Credit: Low-Emitting Materials Credit: Indoor Air Quality Assessment Credit: Thermal Comfort Credit: Acoustic Performance
Innovation (IN)	Credit: Occupant Comfort Survey

