

AEROFLEX[®]-SJ

Closed cell insulation with soft jacketing



***Closed cell
insulation laminated
with Aluminum foil***



UV RESISTANT

ASTM G154

MAIN ADVANTAGES

TEMPERATURE RANGE

Aeroflex standard enhances energy-saving and prevents condensation when used in operating temperatures down to -57°C (-70°F) and prevents heat loss up to 125°C (257°F). However, for higher temperature up to 150°C (300°F), Aeroflex-HT is recommended which is suitable for low pressured steam application, but not suitable for electric heater and radiator system. Within these recommended operating temperatures, it will not affect the thermal efficiency of Aeroflex.

WATER ABSORPTION & MOISTURE PERMEABILITY

The closed cell structure protects against moisture and assure very low water absorption which can eliminate the need for a water vapor barrier in the most applications. However, under severe condition of high humidity (90% RH up), high temperature (40°C up), low ventilation area like tunnel or gutter and also direct to sun light, metal or polymeric jacketing is recommended to use as additional water vapor barrier and greater protection against severe condition.

THERMAL EFFICIENCY

Aeroflex Insulation made from EPDM based synthetic elastomer has low density and closed cell structure with mainly dry nitrogen gas. The products, therefore, have a stable low K.value of 0.23-0.25 BTU.in/ft² hr.°F (at 32-75°F mean temperature) or 0.033 W/mK at 0°C which can save energy consumption on any heating and cooling lines throughout its service life.

FLAME AND SMOKE PROOF

Aeroflex standard products have been specially formulated to meet and exceed the international fire standards such as ASTM E84, UL94, JIS A 9511, IMO A653 and other standards. For other specific international fire standard, Aeroflex also offer Aeroflex-EP for FM approved insulation product. The products have low smoke density while burning and unlike other thermoplastic materials, Aeroflex will not melt nor drip flaming balls, therefore, it will not cause flame transfer.

SPECIFICATIONS

Properties		Aeroflex					Test Method
Cell Structure		Closed Cell					-
Density lbs/ft ³ (Kg/m ³)		2.5-5.0 (40-80)					ASTM D1667
Thermal Conductivity BTU.in/ft ² hr °F (W/ m.K)	Mean Temp	-4°F (-20°C)	32°F (0°C)	75°F (24°C)	90°F (32°C)	104°F (40°C)	ASTM C177 ASTM C518 JIS A 1412-2 ISO 8497
	K-Value	0.218 (0.031)	0.230 (0.033)	0.248 (0.035)	0.256 (0.036)	0.264 (0.038)	
Service Temperature		-70°F to 257°F -57°C to 125°C					Applicable at -200°C
Water Absorption		≤10 (% by weight) ≤0.20 (% by volume)					ASTM D1056 ASTM C1763
Water Vapor Permeability perm.in (g/Pa.s.m)		< 0.10 perm.in (1.44 x 10 ⁻¹⁰ g/Pa.s.m)					ASTM E96
Ozone Resistance		Very Good					ASTM D1149 ASTM D1171
UV Weather Resistance		Very Good					ASTM G154
Heat Stability (%Shrinkage) @ 220°F (104°C) x 7 days		< 7%					ASTM C534
Flame Spread and Smoke Developed Index		25/50					ASTM E84
Flammability		Class V-0 Self-Extinguishing Non-Flammable					UL 94 ASTM D635 JIS A 9511
Surface Flammability & Smoke Toxicity		Pass					IMO 2010 FTP code
Mold Resistance		No Growth					UL 181
Fungi Resistance		No Growth					ASTM C1338 / ASTM G21
Bacteria Resistance		Meet Requirement (Anti-Bacteria)					ASTM E2180
Corrosion of Copper / Stainless Steel		Non Corrosive					DIN 1988
Nitrosamine Contents		Not Detected					FDA CPG 7117.11
RoHS		Pass					According to the latest RoHS Directive
Sound Reduction (AF)		37 dB (25 mm)					DIN EN ISO10052, DIN 4109-11
Sound Absorption Coefficient		NRC = 0.35 @ 25mm THK NRC = 0.45 @ 50mm THK					ASTM C423
Flexibility		Excellent					ASTM C534
Asbestos		Not Detected					EPA 600/R-93/116



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