

ZEROPERM Vapor Barrier Membrane

Product Overview



ZEROPERM® Reversible Vapor Barrier Membrane is an absolute zero-perm barrier that provides maximum protection for all types of insulations used in below ambient, sub-freezing and cryogenic applications on duct, pipe, or vessel systems.

ZEROPERM is a 3-ply composite membrane consisting of a white 0.5 mil polyester film, 1.0 mil aluminum foil, and one 0.5 mil clear polyester film. The foil provides the zero permeance in the composite while the polyester layers protect the foil and provide the white finish, toughness and tear resistance. It is reversible, the white polyester side of can be left exposed when no protective jacket is required and offers an appearance similar to traditional and next generation ASJ, PVC and PVDC polymer jacketing. The clear polyester side presents a smooth silver foil finish.

ZEROPERM vapor barrier is used on cold systems either between layers of insulation on sub-freezing projects like LNG piping, or as the outer vapor-barrier jacket on ammonia, brine or glycol systems under mechanical jacketing, either metal or PVC. It can also be used on chilled water systems replacing ASJ and PVDC jacketing either left exposed or under a protective metal or PVC jacket.

ZEROPERM is typically factory installed by a fabricator but can also be installed in the field. Packaged in rolls with 3 different size options available 23.5" x 500', 35.5" x 500', and 35.5" x 1000'.



Reversible silver/white



Absolute Zero permeability



Puncture and tear resistant



Mold resistant



Paper-free



Easy to install with no special tools required



Meets ASTM E84 25/50 Smoke and Flame requirements



Available in 3 sizes: 23.5" x 500', 35.5" x 500', and 35.5" x 1000'

Membrane Property	Test Method	Results
Total Product Thickness	Micrometer	2.0 Mils(12.2/25/12.2)Film Only 2.4 Mils(Total)
Water Vapor Transmission(grains/hr-ft ²)	ASTM E96-Procedure A	.00
Thermal Emittance	ASTM C-1371	0.76
Puncture Resistance	ASTM D 1000	13 lbf
Tensile Strength	ASTM C1136	27 lb/in(XD) 23 lb/in(MD)
Elongation	ASTM-882-02	55%(MD) 50%(XD)
Mold and Mildew Resistance	ASTM C-1338	No Growth
High Service Temperature Limit	4 Hour Oven exposure	150°F
Low Service Temperature Limit	ASTM D1790	-20°F
Humidity Resistance	ASTM C1258	Pass
Dimensional Stability	ASTM D1204@150°F	<0.25% change
Weight Per Area	Scale/Balance	22.7 lbs/1000 sq.ft.
Flame/Smoke	ASTM E-84	Meets 25/50

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