



# PermaTherm

## Insulation Innovation

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### Expanded Polystyrene Insulation (2 lb/ft<sup>3</sup> density) Physical Properties

PermaTherm's insulation products were tested by Underwriters Laboratories, Inc. and meet the requirements of the Standard Mechanical Code and the International Mechanical Code for pipe and equipment insulation.



	PermaTherm Product #427	ASTM TEST
DENSITY	2.0 lbs/cu ft	C303 D 1622
THERMAL CONDUCTIVITY Long Term Value – 5 yr. BTU/(Hr.) (Sq.Ft.)(F/in.) @75F Mean Temp.	.23	C 177 or C518
THERMAL RESISTANCE VALUES (R) @75 F AT 1" THICKNESS	4.35	
COMPRESSIVE STRENGTH @10% DEFLECTION	30	D 1621
WATER VAPOR TRANSMISSION – MAXIMUM	1.0 perm inch	E 96
WATER ABSORPTION	0.50% by volume	C 272
USE TEMPERATURE RANGE LONG TERM	-310 to 167F	
LINEAR COEFFICIENT OF THERMAL EXPANSION	0.000035 in/in/F	D 696
FLAME SPREAD UP TO 5" THICKNESS	5	E 84
SMOKE DEVELOPED UP TO 5" THICKNESS	160	E 84

Flame Spread and Smoke Development recorded while the material remained in the original test position. Surface Burning Characteristics derived from ASTM E-84 are not intended to reflect hazards presented by this product under actual conditions. The manufacturer in no event assumes liability beyond the purchase price or replacement of material proven to be defective and reported in a timely fashion, but not longer than six (6) months after shipment. Only the senior executive of PermaTherm has the authority to alter or extend these conditions.