

Geofoam No. 5004

Subject: R-values of Geofoam

Date: September 2007 (Revised January 2019)

ThermaFoam R-Control Geofoam is manufactured in conformance to ASTM D6817, "Standard Specification for Rigid Cellular Polystyrene Geofoam." This standard covers the material properties most often required for Geofoam.

However, ThermaFoam R-Control Geofoam is often used in applications which require detailed information of the insulation performance, or R-value. The following Table provides R-value

information for ThermaFoam R-Control Geofoam. The values in the table are based on testing in accordance with ASTM C177, "Test Method for Steady-State Heat Flux Measurements and Thermal Transmission Properties by Means of the Guarded-Hot-Plate Apparatus," or ASTM C518, "Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus."

ThermaFoam R-Control Geofoam Properties									
PRODUCT			THERMAFOAM GEOFOAM						
			12	15	19	22	29	39	46
Density ¹ , min.		lb/ft³ (kg/m³)	0.70 (12)	0.90 (15)	1.15 (18)	1.35 (22)	1.80 (29)	2.40 (38)	2.85 (46)
R-value ¹ , Thermal Resistance, per inch, ASTM C518	25°F	°F.ft².h/Btu (°K.m²/W)	3.6 (0.63)	4.4 (0.77)	4.5 (0.80)	4.8 (0.84)	5.0 (0.88)	5.0 (0.88)	5.1 (0.90)
	40°F	°F.ft².h/Btu (°K.m²/W)	3.4 (0.60)	4.2 (0.73)	4.3 (0.75)	4.6 (0.80)	4.8 (0.84)	4.8 (0.84)	4.9 (0.86)
	75°F	°F.ft².h/Btu (°K.m²/W)	3.2 (0.56)	3.9 (0.68)	3.9 (0.69)	4.2 (0.73)	4.4 (0.77)	4.4 (0.77)	4.5 (0.78)
ASTM D6817 Compliance, Type			EPS12	EPS15	EPS19	EPS22	EPS29	EPS39	EPS46





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