

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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