ThermaFoam Geofoam is a cellular plastic material that is strong, but has very low density (1% of traditional earth materials). It is manufactured in block form and meets ASTM D6817, "Standard Specification for Rigid, Cellular Polystyrene Geofoam." ThermaFoam Geofoam is available in a range of Types to provide control of structural integrity and cost effectiveness.

The information given is deemed to be timely, accurate, and reliable for the use of ThermaFoam Geofoam. Each project using ThermaFoam Geofoam should be designed by a professional engineer. The engineer or project specifications should be consulted to determine the ASTM D6817 Type required for your project loading conditions.

ThermaFoam GEOFOAM		GEOFOAM PRODUCT TYPES						
		12	**15**	**19**	**22**	**29**	**39**	**46**
Density[1], min.	lb/ft³ (kg/m³)	0.70 (11.2)	0.90 (14.4)	1.15 (18.4)	1.35 (21.6)	1.80 (28.8)	2.40 (38.4)	2.85 (45.7)
Compressive Resistance[1,2] @ 1% deformation, min.	psi psf (kPa)	2.2 320 (15)	3.6 520 (25)	5.8 840 (40)	7.3 1050 (50)	10.9 1570 (75)	15.0 2160 (103)	18.6 2680 (128)
Elastic Modulus, min	psi (kPa)	220 (1500)	360 (2500)	580 (4000)	730 (5000)	1090 (7500)	1500 (10300)	1860 (12800)
Flexural Strength[1], min.	psi (kPa)	10.0 (69)	25.0 (172)	30.0 (207)	35.0 (240)	50.0 (345)	60.0 (414)	75.0 (517)
Water Absorption by total immersion, max.,	vol. %	4.0	4.0	3.0	3.0	2.0	2.0	2.0
Oxygen Index[1], min.	vol. %	24	24	24	24	24	24	24
Buoyancy Force	lb/ft³ (kg/m³)	61.7 (990)	61.5 (980)	61.3 (980)	61.1 (980)	60.6 (970)	60.0 (960)	59.5 (950)
ASTM D6817 Compliance, Type		**EPS12**	**EPS15**	**EPS19**	**EPS22**	**EPS29**	**EPS39**	**EPS46**

[1] See ASTM D6817 Standard for test methods and complete information.

[2] Combined live and dead load stresses should not exceed the compressive resistance at 1% deformation.

ThermaFoam Geofoam is used in ground fill applications where a lightweight fill material is required to reduce stresses on underlying or adjoining soils/structures.

Ready to Use.

ThermaFoam Geofoam maximizes onsite installation efficiency: material arrives ready to place, no weather delays, material can be prefabricated or cut at the jobsite, no staging required, material can be inventoried, production efficiency improved, and it is easy to handle.

Design Loads.

For most applications, long-term design loads should not exceed the linear elastic range of ThermaFoam Geofoam. Combined live and dead load stresses should not exceed the compressive resistance at 1% deformation.

In some specialty compressible applications, the compressive resistance at 5% and 10% deformation may be applicable. Please consult ThermaFoam Geofoam Technical Bulletins for additional information.

In general earthwork applications (such as levees, dikes, berms, etc.) uplift buoyancy force must be counteracted with overburden or restraint devices, such as geogrids, geomembranes, hold down devices, etc.

Size and Shape.

ThermaFoam Geofoam is produced in block form and is easily positioned at the work site. Standards sizes:

- 4' (1.2 m) widths
- 8' (2.4 m) up to 16' (4.8 m) lengths
- 1" (25 mm) to 36" (914 mm) thickness

Other sizes and fabrication can be provided by the manufacturer.

Exposure to Water and Water Vapor.

The mechanical properties of ThermaFoam Geofoam are unaffected by moisture. Exposure to water or water vapor does not cause swelling.

Temperature Exposure/Flame Retardants.

ThermaFoam Geofoam is able to withstand the rigors of temperature cycling, assuring long-term performance.

Although flame retardants used in the manufacture of ThermaFoam Geofoam provide an important margin of safety, ThermaFoam Geofoam must be considered combustible.

The maximum recommended long-term exposure temperature for ThermaFoam Geofoam is 165°F (74°C).

Adhesives, Coatings, and Chemicals.

Solvents which attack ThermaFoam Geofoam include esters, ketones, ethers, aromatic, and aliphatic hydrocarbons and their emulsions, among others. If ThermaFoam Geofoam is to be placed in contact with materials (or their vapors) of unknown composition, pretest for compatibility at maximum exposure temperature.

Proven to meet, or exceed, building codes.

ThermaFoam Geofoam is manufactured under an industry leading quality control program monitored by UL and further recognized in UL Evaluation Report UL ER40338-01. ThermaFoam meets ASTM D6817, "Standard Specification for Rigid, Cellular Polystyrene Geofoam."

Termite Resistant.

One of the most destructive forces anywhere is termites. ThermaFoam Geofoam can be manufactured with borate, a proven and safe additive, that effectively resists termites.

ThermaFoam Geofoam with borate meets ICC ES AC239, "Acceptance Criteria for Termite-Resistant Foam Plastics".

Storage and Ballast.

ThermaFoam Geofoam stands up well to normal short-term weather conditions encountered during installation.

Long-term exposure to sunlight causes yellowing and a slight embrittlement of the surface due to ultraviolet light. This has little effect on mechanical properties. If stored outdoors, cover ThermaFoam Geofoam with opaque polyethylene film, tarps, or similar material.

ThermaFoam Geofoam should be ballasted to prevent displacement by wind or high water conditions, both in storage and during all phases of placement.

Warranty.

ThermaFoam Geofoam Licensees offer a product warranty ensuring physical properties.

CLICK HERE FOR QUOTE

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