



GEOFOAM

Foam-Control Geofoam is a cellular plastic material that is strong, but has very low density (1% of traditional earth materials). It is a manufactured in block form and meets ASTM D6817, "Standard Specification for Rigid, Cellular Polystyrene Geofoam." Foam-Control 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 Foam-Control Geofoam. Each project using Foam-Control 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.

Foam-Control Geofoam Properties								
Property		ASTM D6817						
		EPS12	EPS15	EPS19	EPS22	EPS29	EPS39	EPS46
Density ¹ , min.	lb/ft ³ (kg/m ³)	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	2.2	3.6	5.8	7.3	10.9	15.0	18.6
	psf (kPa)	320 (15)	520 (25)	840 (40)	1050 (50)	1570 (75)	2160 (103)	2680 (128)
Elastic Modulus ¹ , 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 ¹ 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/ft ³ (kg/m ³)	61.7 (990)	61.5 (980)	61.3 (980)	61.1 (980)	60.6 (970)	60.0 (960)	59.5 (950)

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.

Foam-Control 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.

Foam-Control 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 Foam-Control 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 Foam-Control 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.

Foam-Control 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 Foam-Control Geofoam are unaffected by moisture. Exposure to water or water vapor does not cause swelling.

Temperature Exposure/Flame Retardants.

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

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

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

Adhesives, Coatings, and Chemicals.

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

Quality Assurance.

Foam-Control Geofoam meets or exceeds the requirements of ASTM D6817, "Standard Specification for Rigid, Cellular Polystyrene Geofoam." Foam-Control Geofoam is monitored for Quality Control and Listed by Underwriters Laboratories Inc.



Resistance to Termites, Mold, and Mildew.

Foam plastics have been shown to become termite infested under certain exposure conditions. Foam-Control Geofoam with Perform Guard[®] provides resistance to termite infestation. Please review literature on Foam-Control Geofoam with Perform Guard for complete information.



Foam-Control Geofoam will not decompose and will not support mold or mildew growth. Foam-Control Geofoam provides no nutrient value to plants or animals.

Storage and Ballast.

Foam-Control 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 Foam-Control Geofoam with opaque polyethylene film, tarps, or similar material.

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

Warranty.

Foam-Control Geofoam Licensees offer a product warranty ensuring physical properties.



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