

# INSULPERM® GEOFOAM



## Commercial Product Data Sheet

### Product Description

Insulperm Geofoam is a premium quality, CFC-free expanded polystyrene insulation board used in geotechnical applications. It is a manufactured block material that meets the engineered product specification standards of ASTM D6817. Standard densities range from 11 kg/m<sup>3</sup> to 28.8 kg/m<sup>3</sup> (0.7 lb/cf to 1.8 lb/cf). The density range allows for the specification of a material with the mechanical properties required by the project.

### Product Uses

Insulperm Geofoam is used in ground fill applications where a lightweight fill material is required to reduce stress on underlying or adjoining soils/structures. Projects involving roads, bridge approach fills, embankments, levees, berms, foundations, plaza decks, green roofs, etc. can benefit from the use of Insulperm Geofoam.

### Product Size and Shape

Insulperm Geofoam is produced in a variety of sizes and is easily positioned at the job site.

Standard sizes: 0.61 m (2') widths and 1.2 m (4') lengths.

1.2 m (4') widths and 2.4 m (8') lengths.

Typical thicknesses are 25 mm (1") to 914 mm (36").

Physical Properties of Insulperm Geofoam					
Property	EPS12	EPS15	EPS19	EPS22	EPS29
Density, min., kg/m <sup>3</sup> , (lb/ft <sup>3</sup> )	11.2 (0.70)	14.4 (0.90)	18.4 (1.15)	21.6 (1.35)	28.8 (1.80)
Compressive Resistance <sup>1</sup> @ 1% deformation, min., kPa (psi)	15 (2.2)	25 (3.6)	40 (5.8)	50 (7.3)	75 (10.9)
Flexural Strength min., kPa (psi)	69 (10)	172 (25)	207 (30)	276 (40)	345 (50)
Water Absorption by Total Immersion, max., volume %	4.0	4.0	3.0	3.0	2.0
Oxygen Index, min., volume %	24.0	24.0	24.0	24.0	24.0

<sup>1</sup>ASTM D 1621-00 using 305 mm (12") cubes.

### Limitations and Cautions

Insulperm Geofoam application should be designed with density modifications when water will be present in the insitu condition. In conditions where Geofoam is periodically subjected to submergence from fluctuating ground water, add 30 kg/m<sup>3</sup>. In conditions where Geofoam is continually below ground water, add 80 kg/m<sup>3</sup>. These design recommendations are based on potential water absorption and the effects on density when analyzing cases involving downward loading.

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