

# HD400

## GEOTECHNICAL INSULATION

Tested as per ASTM D1621 & ASTM C518 standards

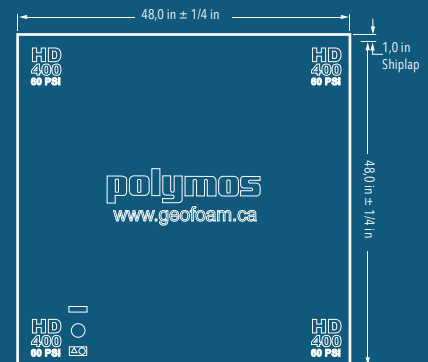


### HD400 - GEOTECHNICAL INSULATING PANEL

Standard reference	14301 MTQ STANDARD, TOME VII, CHAPTER 14 (Misc. materials)
Class	TYPE A : POLYSTYRENE for thermal insulation
Maximum service temperature	74 °C [165 °F]
Flammability	Flame retardant agent
Perpendicularity	0.2 in [5 mm] (Maximum difference between diagonal lengths)
Compression resistance (min.) @ 10 % of deformation (ASTM D1621)	414 kPa [60 psi] The load limit used by Geofoam designs is typically at 35 % of compression resistance
Elasticity module (min.) (ASTM 1621)	15 000 kPa [2176 psi]
Thermal resistance - per inch (min.) (ASTM C518)	R - 4,2 (0,74 m <sup>2</sup> °C / W)
Dimensions	24 in x 48 in [609 mm x 1 219 mm] (Straight edges) or 48 in x 48 in [1 219 mm x 1 219 mm] (Shiplap)
Thickness	2.4 po [61 mm] (Adjustable)
Specific aspect	1 in shiplap [25 mm]
Water absorption (ASTM D2842)	Maximum 2 %
Packaging options	Regular plastic wrap UV plastic wrap (For long-term storage)

Expanded polystyrene based geotechnical components have been used for decades as insulation on road infrastructures projects.

Due to their great structural stability, their resistance to freeze-thaw cycles, their durability and their excellent cost/effectiveness costs, the high density insulation geotechnical panels have proven to be a great value option to reduce maintenance costs and road infrastructure repairs, throughout their lifetime.



### GEOTECHNICAL APPLICATIONS :

- Road insulation (Protection from frost)
- Load distribution
- Road
- Railways
- Airport runways
- Underground infrastructure insulation (Aqueducts and sewers)

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VERY HIGH DENSITY, compression resistance 414 kPa / 60 psi\*  
(When tested at 10 % of deformation as per ASTM D1621)

48 in x 48 in x 2.4 in panel WITH shi lap

24 in x 48 in x 2.4 in WITHOUT shi lap

Made of EPS (Expanded Polystyrene)

Contains 95 % AIR

LIGHT, less than 6 kg per panel (2.4 in thick)

Water and humidity RESISTANT

Long term DIMENSIONAL STABILITY

STABLE throughout freeze and thaw cycles

DURABLE, does not decompose

INERT in the environment, does not transform into gas  
or leachate

FIREPROOF material, does not spread flame

DOES NOT contain CFC / HCFC / HFC

Recyclable

Geotechnical behaviour DOCUMENTED and PREDICTABLE

MEETS REQUIRED MECHANICAL PROPERTIES OF MTQ 14301  
STANDARD, VOLUME VII, CH 14 (MISC. MATERIALS)  
TYPE A / THERMAL INSULATION

Over the years, Polymos® has been involved in numerous projects relying on the unique characteristics of lightweight fill. From that extensive experience, Polymos® specialists developed an unmatched expertise to offer you more than only lightweight fill. [Contact us to benefit from our full services :](#)

- Technical assistance
- Design
- Lightweight fill components,  
custom-design and manufacturing



This product is available in various dimensions and densities to meet your project's specific requirements. Custom-made blocks and sheets can be designed to meet atypical specifications. Contact us for more information or to get a quote based on your needs.

\* Tested as per ASTM D1621 & ASTM C518. The load limit used by Geofoam designs is typically at 35 % of compression resistance.



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