

Unibloc Geofoam® M Grade

Technical Data Sheet

Unibloc Geofoam® M Grade Expanded Polystyrene (EPS), is a rigid cellular plastic material that is strong, but has very low density. It is made in block and sheet form and is produced in Australia to meet Australian Standards, AS1366, Part 3. Unibloc Geofoam® is tested against these minimum requirements.

Quality Assurance

Unibloc Geofoam® M Grade exceeds the requirements of AS1366, Rigid cellular plastic sheets for thermal insulation Part 3: Rigid Cellular Polystyrene-Moulded.

Size and Shape

Unibloc Geofoam® M Grade is produced in block form and sheet form to meet customer requirements. Standard sizes:

- 1.2 metre width
- 2.5, 3.0, 5.0, 6.0 metre lengths
- 20 mm up to 1.2 metre thickness

Other sizes and fabrications can be provided by Unipod® upon request.

Design

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

Physical Property	Test Method	Requirement/Result	Performance
Nominal Density	ISO 845	19 kg/m ³	N/A
Compressive strength at 1% deformation	AS 2498.3:1993	35 kPa	Pass
Compressive strength at 10% deformation	AS 2498.3:1993	105 kPa (min)	Pass
Cross Break Strength	AS 2498.4:1993	200 kPa (min)	Pass
k-Value (thermal conductivity) 50mm sample at 23°C	AS 4859.1:2018	0.039 W/mK (min)	N/A
R-Value (thermal resistance) 50mm sample at 23°C	AS 4859.1:2018	1.28 m ² K/W (min)	N/A
Flame Propagation	AS 2122.1:1993	2 SD (max)	Pass
Median flame duration		3 SD (max)	Pass
Eighth value		30% (min)	Pass
Median volume retained		27% (min)	Pass
Dimensional Stability – length, width, thickness	AS 2498.6:1993	1% (max)	Pass
Water Vapour Transmission, measured parallel to rise at 23°C	AS 2498.5:1993	520 µg/m ² s (max)	Pass
Elastic Modulus, min	ASTM D6817	4200 kPa	Pass