

Unibloc Geofoam® X39 Grade

Technical Data

Unibloc Geofoam® X39 Grade expanded polystyrene (EPS), is a cellular plastic material that is strong, but has very low density. It is made in block 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® X39 Grade exceeds the requirements of AS1366, Rigid cellular plastic sheets for thermal insulation Part 3: Rigid Cellular Polystyrene-Moulded.

Size and Shape

Unibloc Geofoam® X39 Grade is produced in block 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®.

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% load.

Physical Property	Test Method	Requirement/Result	Performance
Nominal Density	ISO 845	39 kg/m ³	N/A
Compressive strength at 1% deformation	AS 2498.3	82 kPa	Pass
Compressive Strength at 10% deformation	AS 2498.3	248 kPa (min)	Pass
Cross Break Strength	AS 2498.4	460 kPa (min)	Pass
k-Value (thermal conductivity) 50mm sample at 23°C	AS 4859.1: 2018	0.033W/mK	N/A
R-Value (thermal resistance) 50mm sample at 23°C	AS 4859.1: 2018	1.52 m ² K/W	N/A
Flame Propagation	AS 2122.1	2 SD (max)	Pass
Median flame duration		3 SD (max)	Pass
Eighth value			
Median volume retained		50% (min)	Pass
Eighth value		47% (min)	Pass
Dimensional Stability – length, width, thickness	AS 2498.6	1% (max)	Pass
Water Vapour Transmission, measured parallel to rise at 23°C	AS 2498.4	350 ug/m ² s (max)	Pass
Elastic Modulus, min	ASTM D6817	10200 kPa	Pass