

## Product Data Sheet: Expanded Polyethylene Foam (EPE) - Sheet & Roll



Expanded Polyethylene (EPE) Sheet is a cellular expanded foam made from low density polyethylene. It is available in sheets (plank), and also in rolls. It has a closed cell structure on the sheet surface but is not water proof when cut or ruptured.

EPE is stable in shape while being flexible under compression. It is an excellent shock absorber and damper of vibration in packaging applications. It is easy to cut and fabricate to required shapes, while being non-abrasive, clean and dust-free. EPE is lightweight, fungi, and bacteria resistant, and is water repellent on its surface, though not water-proof when submerged. EPE is chemically inert and stable over time. It has very low embodied energy, is low cost, while offering excellent thermal resistance.

Common applications include: packaging, case inserts, surface protection, vibration dampening and thermal insulation.

Foam Sales' EPE is stocked in sheets (planks) in sizes shown in table 2 below. A range of EPE is also available in roll form as shown in the same table.

### Properties of Expanded Polyethylene Foam (EPE)

Property	Unit of Measure	Data
Cell Structure		Semi Closed Cell
Density	Kg/m <sup>3</sup>	18 – 25
Cell Size	mm	0.25 – 0.35
Tensile Strength	Mpa	0.02
Elongation	%	130 – 140
Compression 10%	Kg / cm <sup>2</sup>	>0.030
Compression 20%	Kg / cm <sup>2</sup>	>0.15
Compression Set	%	7
Tear Strength	Kg / cm <sup>2</sup>	2.2 – 2.4
Shrinkage	% at 70°C	2.0
Water Absorption*	Mg / cm <sup>2</sup>	0.03
Water Vapour Transmission Rate*	Gm/m <sup>2</sup> /hr	0.01
Moisture transmission Rate*	Gm/m <sup>2</sup>	4.6

Thermal Conductivity	W/m.K	0.033
Operating Temperature	°C	-40 – 75
Colour		Opaque white
Environmental	No CFCs or HCFCs	No CFCs or HCFCs

\*Water and Moisture results apply to Roll stock only. Sheets / Planks are water resistant on outer surfaces but will allow moisture intrusion through edges and cut surfaces.

**Sheet and Roll Sizes and Thicknesses - Table 2**

Product	Sheet / Roll Size	Thickness (mm)
EPE Sheet	2000x1000mm	10,15,20,25,30,40,50,75,100
EPE Roll	1200mm x100m	1,2,3,4
EPE Roll	1200mm x70m	6
EPE Roll	1200mm x50m	8
EPE Roll	1200mm x45m	10
EPE Roll	1200mm x40m	12