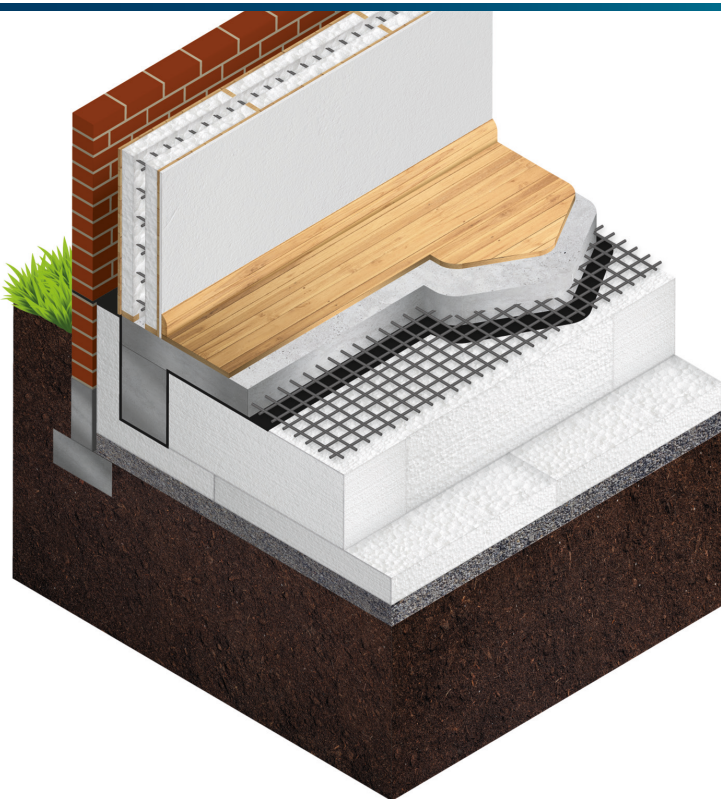




Technical Datasheet

Expanded Polystyrene Passive House Flooring Insulation



Key Features & Benefits

- U-Value to 0.1 Wm²k
- Faster design and install of foundations
- Lightweight and easy to handle
- High compressive strength
- Reduction of energy use
- Inert – does not attract mould
- Residential and commercial use
- Quick and easy install
- Rot proof
- A+ BRE Green Guide rated insulation
- 100% recyclable
- Manufacturing process free of CFC's and HCFC's

Passive House Standard

Passive House is a low energy construction standard aimed at new builds, residential, to create superior energy-efficient homes in comparison to traditional build methods.

Offering a fabric-first approach, Passive House focusses on using high levels of insulation in the building envelope, increasing air tightness to reduce energy use yet maintain thermal comfort for the occupants.

The Passive House standard requires the achievement of a U-Value of 0.10 Wm²k by using the building envelope elements (floors, walls, roof, doors and windows) to achieve a 90% reduction on energy demands for heating and cooling as well as reducing CO₂ emissions.

EPS Passive House Foundation System

As A+ BRE Green Guide rated insulation, expanded polystyrene (EPS) is the ideal material to use in helping to achieve the Passive House standard.

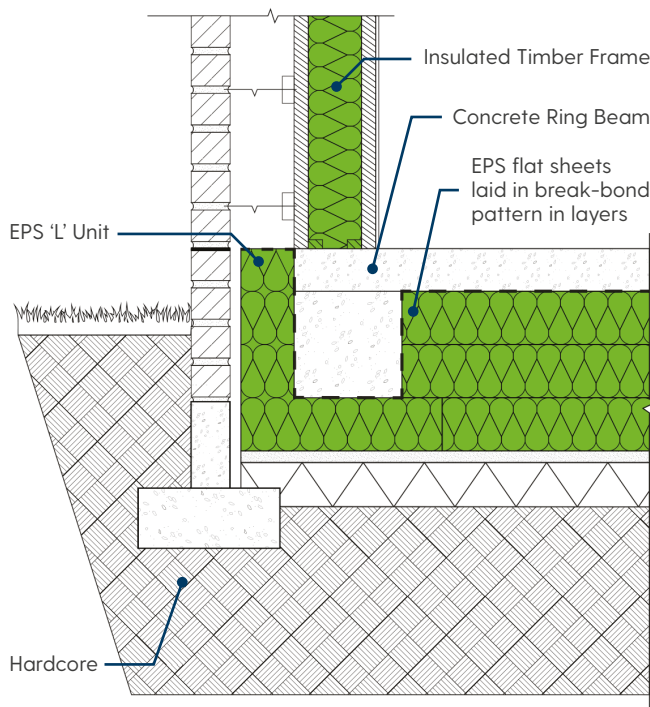
Improvements to the building fabric begin with highly insulated foundations where the "L" shaped units and multiple layers of EPS slab insulation solve the problem of cold bridging between the ground and the foundation creating a thermally efficient build.

The EPS insulation is prepared offsite and manufactured according to the required foundation size ensuring a quick and easy install once onsite.

Technical Specification

Physical Properties BS EN13163:2016	EPS 70	EPS 100	EPS 150	EPS 300	EPS 70 Grey	EPS 100 Grey
Thermal Conductivity (W/mK) (Lambda 90/90)	0.038	0.036	0.034	0.034	0.030	0.030
Length Tolerance	L2	L2	L2	L2	L3	L2
Width Tolerance	W2	W2	W2	W2	W3	W2
Thickness Tolerance	T2	T2	T2	T2	T2	T2
Flatness Tolerance	P5	P5	P3	P3	P5	P5
Squareness	S1	S1	S1	S1	S5	S1
Bending Strength (kPa)	115	150	200	450	115	150
Fire Classification	Euroclass E	Euroclass E	Euroclass E	Euroclass F	Euroclass E	Euroclass E
Water Vapour Permeability (mg Pa.h/m)	0.015 - 0.030	0.009 - 0.020	0.009 - 0.020	0.006 - 0.015	0.015 - 0.030	0.009 - 0.020
Dimensional Stability	DS (N) 5	DS (N) 5	DS (N) 5	DS (N) 5	DS (N) 5	DS (N) 5
Compressive Strength at 10% (kPa)	70	100	150	300	70	100
Compressive Strength at 1% (kPa)	20	45	70	90	20	45
Nominal Density (kg/m ³)	15	20	25	40	15	20

Cross Sectional Illustration



Dimensions

Passive House insulation boards and L units are available in the following standard sizes:

Slabs

Length: 2400mm

Width: 1200mm

Thickness: 100mm - 200mm

Typical 'L' Units

Length: 1200mm

Width: 600mm

Height: 450mm

Thickness: 100mm



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