

Flat Roof Insulation

Technical Data Sheet

Sundolitt Flat Roof Insulation Board is a high strength Expanded Polystyrene (EPS) designed for use in warm flat roof constructions.

Suitable for use with fleece backed single ply membranes, can also be used with all other weatherproofing membranes with the addition of an appropriate separating layer.

Available as flat sheet to be laid over a deck laid to falls to provide excellent insulation. The panels are square edged and can be cross laid in multiple layers to reduce the risk of cold bridging.

Standard Sizes Available								
	Length	ngth Width Th						
Dimensions (mm)	1200	1200	50 - 600					
	1200	600	50 - 600					

Our Flat Roof Insulation Board S150 is suitable for standard flat roof applications. Other grades are available for areas of high traffic or below air handling units and other heavy objects.

In areas of high point load the design should allow for long term creep. EPS has excellent resilience against long term compression at less than 2% when loaded to 30% of the 10% compressive load. (see table below for design loads)

Accreditation

Sundolitt Climate EWI is manufactured in accordance with BS EN ISO 13163.



- High compressive strength: 100 up to 500 kPa
- Single layer up to 600mm
- Lightweight and easy to install
- No requirement for PPE

Fire

Sundolitt Flat Roofing is supplied with a flame retardant additive achieving Euroclass E to BS EN ISO 13501-1.

Environment

EPS is an inert material and does not create any known risk to the environment. It has an ODP of zero and GWP of less than 5 and is easily recycled.

BRE have assessed EPS as having an A+ rating within the Green Guide to Specification.





Sundolitt Expanded Polystyrene - Physical Properties											
PRODUCT GRADE		S150	S200	S250	S300	S350	S400	S500	CE100		
Thermal Conductivity (W/mK)		0.035	0.034	0.034	0.033	0.033	0.033	0.033	0.030		
Compressive Strength at 1% nominal Compression (kPa)		70	90	100	120	140	160	190	45		
Compressive Strength at 10% nominal Compression (kPa)		150	200	250	300	350	400	500	100		
Long Term Load (kPa) (Comp. Creep <2% over 50 yrs)		45	60	75	90	105	120	150	30		
Long Term Water Absorption by Immersion (vol/vol)	5%										
Water Vapour Resistivity (MNs/gm)		250	350	350	350	350	350	350	200		
Water Vapour Diffusion Resistance Factor (µ)		30-70	40-100	40-100	40-100	40-100	40-100	40-100	30-70		
Reaction to Fire (Euroclass)	E										

