expanded polystyrene

Insulation that exceeds expectation

Roofs

CONTENTS

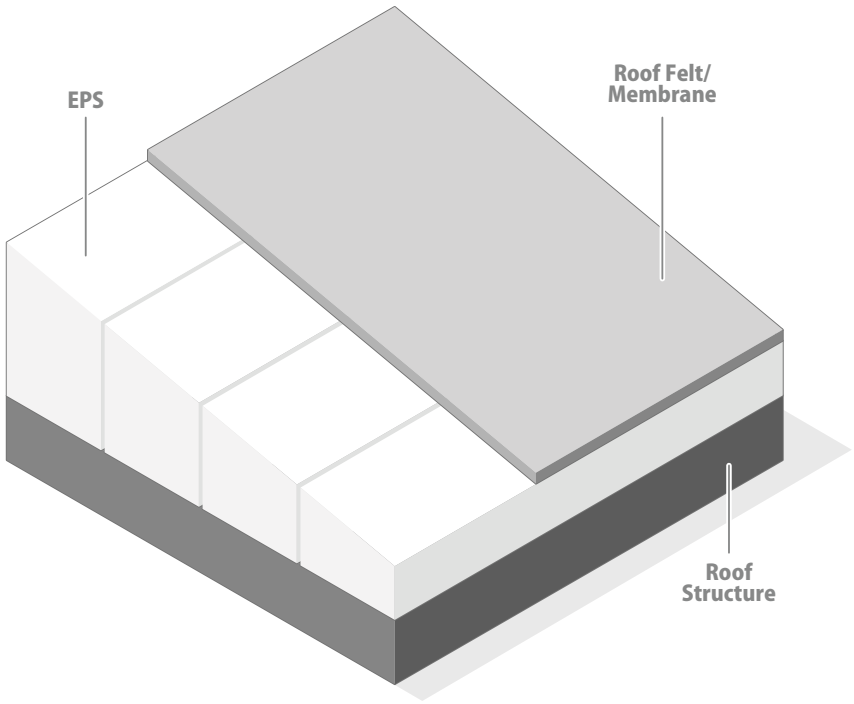
Our Accreditations

BBA BBA CE BBA

S and B Uniform Thickness & Cut-to-falls Roof Boards

We manufacture a wide range of roofing insulation products to meet the various required applications.

We work in conjunction with roof engineers and design team (Building Innovation) to offer the complete design and supply package.



A main consideration for a specifier is to decide which weather proof finish is required and then build up a compatible system to accommodate this, coupled with the need to take into account the effect of heat on the construction both during construction and after completion.

Other important issues involve the selection of a compatible adhesive, sealant and or mechanical fixing to bond the weatherproof membrane plus the control of water vapour.

S and B EPS offer a wide range of systems that are available in a wide range of densities and thicknesses with, a square edge, shiplap or tongue and grooved edge detail.

Cut-to-falls insulation offers the ideal solution to refurbishment and ponding problems on existing buildings.

Uniform thickness boards are suitable for roofs which have an existing fall incorporated and are unaffected by bacteria, fungi or molds and maintain their thermal efficiency throughout the life of the building.

Compatibility

S and B EPS roof insulation can be adapted to suit a wide range of applications including weatherproof roof membranes.

Unlaminated expanded roof boards are suitable for use under EPDM/ butyl rubber roofing and some plastic type single layer membranes.

Where the membrane is plasticised, a separating layer of fleece is required between the polystyrene and the membrane.

Pre-felted boards are suitable where built up felt or high performance roofing felts are used with mastic asphalt roofing, but care must be taken when laying in very high ambient temperatures (technical information available on request).

S and B profile roof boards

S and B EPS profile roof boards are designed to assist in the refurbishment of existing profiled roof finish by offering opportunity to change the appearance from that of a undulating profile to a uniform finish and offering greatly improved benefits to the thermal performance of the roof to current part L standards.

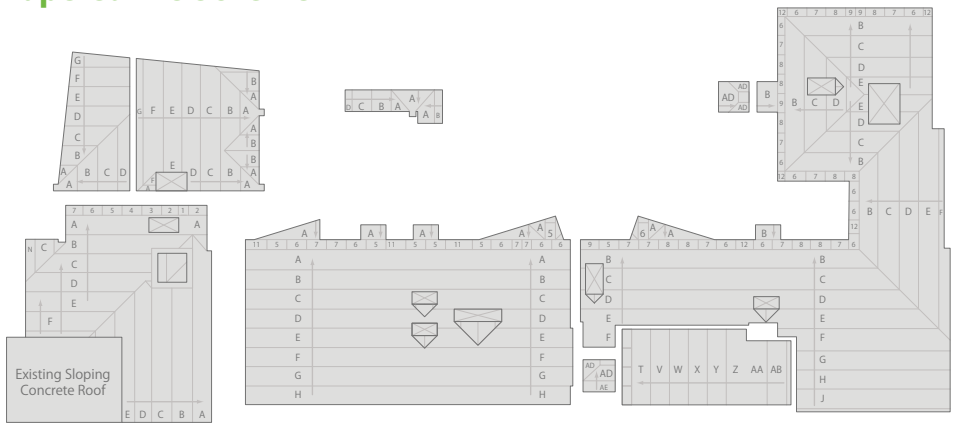
S and B profile boards can be manufactured to accommodate any one of the existing propriety brand profiles using the latest CNC control cutting technology.

S and B roof panels are available with an unlaminated finish and also with 3b felt.

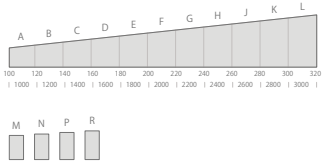
S and B Profiled boards are available in EPS 100E, EPS 150E, EPS 200E and Lambdatherm.

Boards sizes are to customer requirements and bespoke.

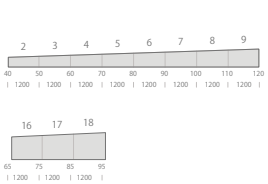
Tapered EPS Scheme



EPS
Cross section not to scale



EPS Tapered Gutter
Cross section not to scale



EPS
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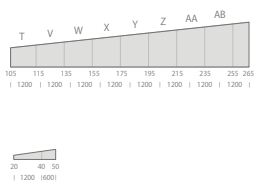


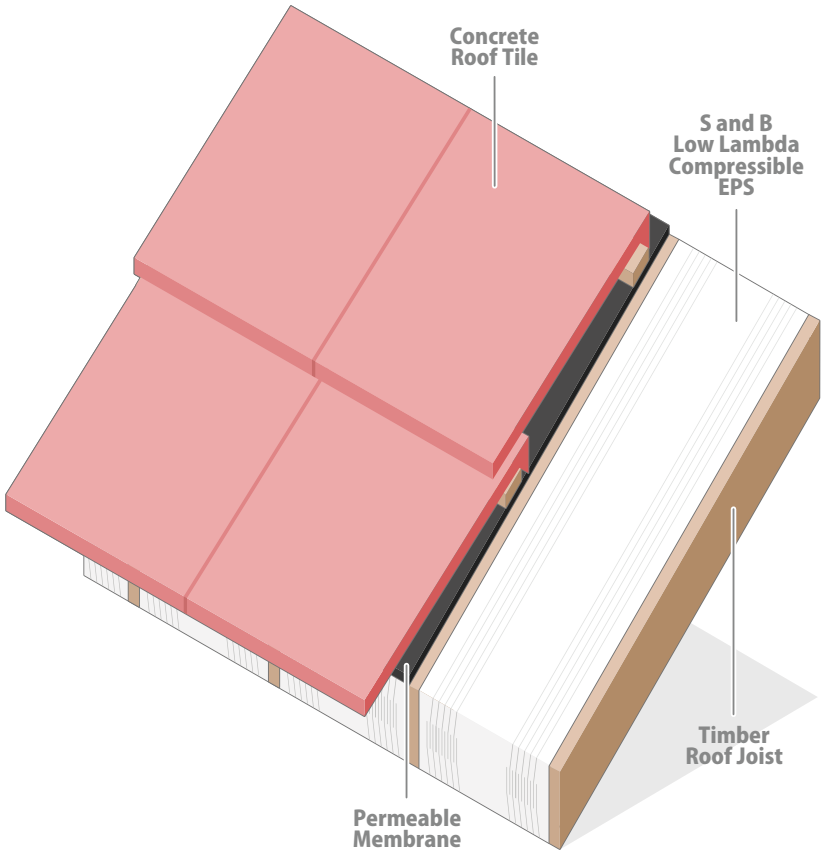
Flat Board Legend

1 = 40mm flat | 10 = 20mm flat | 11 = 70mm flat | 12 = 80mm flat | 13 = 140mm flat | 14 = 200mm flat | 15 = 65mm flat

S and B EPS Compressible Roof Panel

Our compressible roof panel works on the concertina principle and is effective for a wide range of applications including between rafter/trusses in sloping roofs, between joints for stud partitions, timber framed houses and as insulation under floors where basements are present.

S and B EPS compressible roof panels are installed with pressure being applied to the width of the panel that will always seek to return to its original dimension and therefore, as this is greater than the stated dimension, it is self retaining.



S and B EPS compressible roof panels can accommodate a wide range of rafter centres encountered with the minimum of fuss and greatly reduce the need for on-site cutting as experienced with conventional boards.

Dimensions

Length: 1200mm

Thickness: 90,100,125,150,175 and 200mm as standard with other thicknesses available by request.

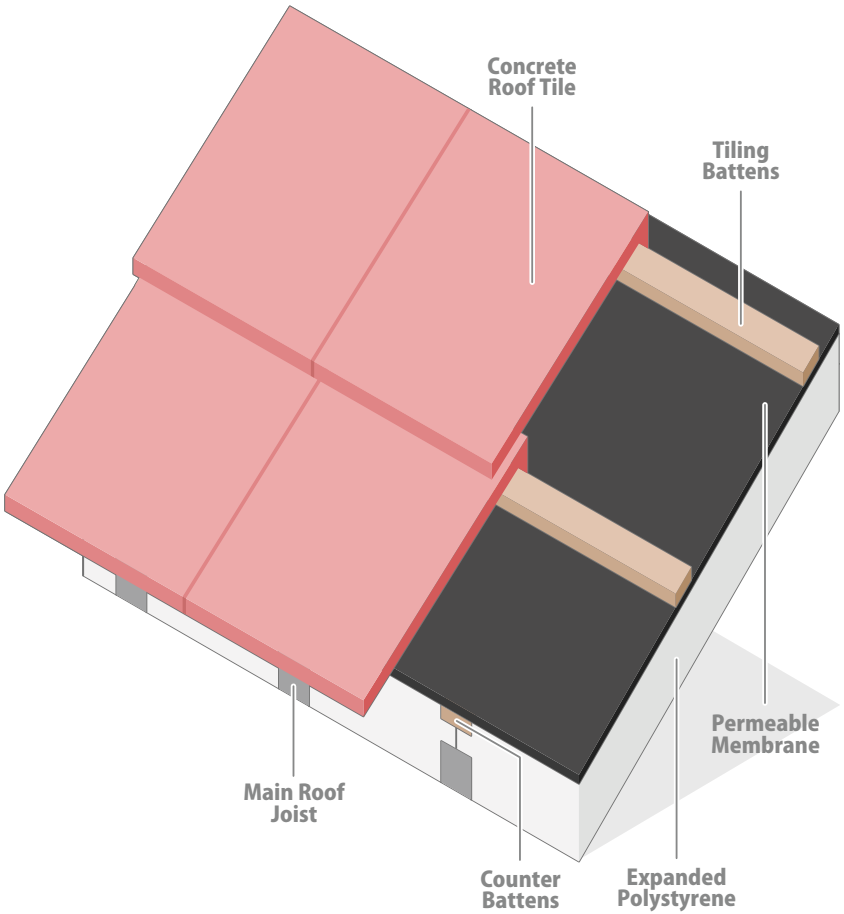
Width: 375mm for 400mm nominal centres, 425mm for 450mm nominal centres and 575mm for 600mm nominal centres.

S and B compressible roof panels are manufactured with flame retardant additives and are CFC and HCFC free, Most common grade is Lambdatherm for use.

S and B EPS Warm Pitched Roof Panel

Our pitched roof panels are designed for use in warm pitched roof applications to provide a high level of insulation and are designed to insulate both the rafters as well as the roof and prevent the rafters forming a cold bridge.

When used in conjunction with a breathable membrane such as Roofshield or an equivalent it removes the need for ventilation of the roof void.



S and B EPS pitched roof panels are manufactured in various sizes to suit most rafter centres, thicknesses and edge profiles to suit nominal 38 or 50mm rafter centres plus, if required, an edge detail can be produced to accommodate double lapped rafters.

S and B EPS pitched roof panels are available in the following dimensions.

Length: 1200mm

Width: to suit 400,450 and 600mm rafter centres with standard thicknesses being 90 and 140mm other thicknesses are available on request.

All S and B EPS pitched roof panels are manufactured using fire retardant grades of EPS as standard, without the use of CFC and HCFC gases.

Common grades used are EPS 100E, EPS 150 E, EPS 200E and Lambdatherm our high thermal performance material.

S and B EPS pitched roof panels are designed to accommodate 400, 450 and 600mm rafter centres as standard.

When installing S and B EPS pitched roof panels the first run of panels should be installed from the ridge, ensuring that the first panel matches the pitch of the roof, then continue the run to the eaves, ensuring that the rafter end again matches the required angle at the eaves.

This procedure should then be followed on each successive run until completion, ensuring that any gaps are filled with a suitable expanding foam sealant. Then a 38 x 50mm treated timber batten should be attached to the rafter tops at the eaves, abutting the last run of roof panels providing a stop end to retain the panel in position.

The panels are then secured by a 38 x 50mm wide treated counter batten positioned in the recess [as shown in the diagram, left] formed between two rows of panels.

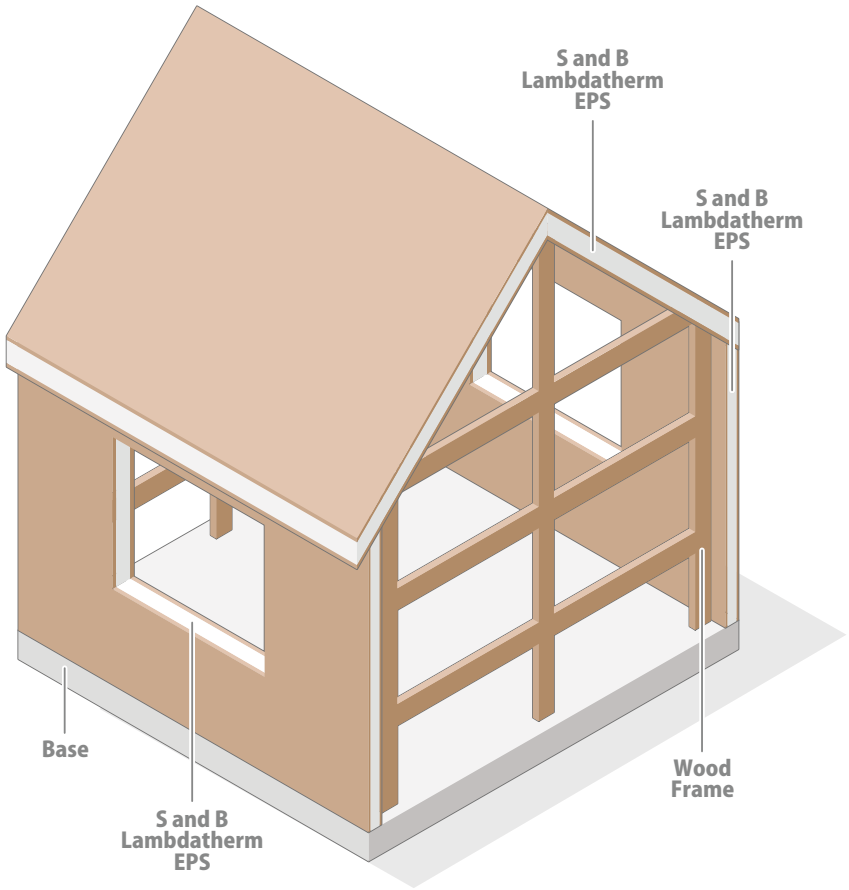
If required S and B EPS pitched roof panels are available to accommodate lapped rafters, matching the standard profile of our pitched roof panel boards.

A proprietary permeable sarking membrane should be installed over the counter battens in accordance with the manufacturers recommendations, with the tile battens then fixed to the counter battens using 65mm nails followed by the tiles with all work being carried out in accordance to BS 5534: Part 1.

S and B Structural Insulated Panels

The way we build houses is changing, with environmental concerns and issues likely to dominate all our lives for the foreseeable future.

As a result of this the building industry is changing to adapt new technologies resulting in the building of a brand new type of environmentally friendly energy efficient zero carbon housing.



One method of construction that will be at the forefront of this building design and technology is SIPS panels.

We at S and B EPS embrace this technology and are pleased to be able to offer a CFC and HCFC free EPS core material giving the required flexibility to achieve any required U value.

Advantages

S and B EPS SIPS core panels are manufactured from CFC and HCFC free polystyrene and are available in the following grades EPS 70E, EPS 100E, EPS 150E, EPS 200E and Lambdatherm.

S and B EPS SIPS core panels offer a wide range of sizes up to 5m in length and 1.2m in width that are able to accommodate any required thickness.

S and B Roofs

S and B Identification Table

New Identification / colour coding of products manufactured to BSEN 13163		
EPS 70	2 x brown stripes	
EPS 70 E	2 x brown stripes & 1 red stripe	
EPS 100	1 black stripe	
EPS 100 E	1 black stripe & 1 red stripe	
EPS 120	2 x green stripes	
EPS 120 E	2 x green stripes & 1 red stripe	
EPS 150	1 yellow stripe	
EPS 150 E	1 yellow stripe & 1 red stripe	
EPS 200	2 x black stripes	
EPS 200 E	2 x black stripes & 1 red stripe	
EPS 250	1 violet stripe	
EPS 250 E	1 violet stripe & 1 red stripe	
EPS 300	2 x violet stripes	
EPS 300 E	2 x violet stripes & 1 red stripe	

S and B Roofs

S and B Specification Data

Property	Conditions	Grades							Lambdatherm	
		EPS300	EPS250	EPS200	EPS150	EPS120	EPS100	EPS70	90	70
Strength										
Compressive strength kPa Min	at 10% compressive strength	300	250	200	150	120	100	70	90	70
Cross breaking strength kPa Min		450	350	250	200	170	150	115	150	115
Safe working load kPa	at 1% nominal compression	120	100	90	70	45	45	21	45	21
Heat										
Thermal conductivity [k] value W/mk Max	10°C mean	0.033	0.033	0.034	0.035	0.036	0.036	0.038	0.030	0.032
Water (tabulated values)										
Vapour diffusion resistance factor μ1		40-100	40-100	40-100	30-70	30-70	30-70	20-40	30-70	20-40
Vapour permeability δ mg [pa.h.m]		0.007 to 0.018	0.007 to 0.018	0.007 to 0.018	0.010 to 0.024	0.010 to 0.024	0.010 to 0.024	0.018 to 0.036	0.010 to 0.024	0.018 to 0.036

To discover more about the benefits of S and B Roofs, call today on 0191 250 0818, or go to www.sandbeps.com.

FIND US

At S and B EPS Ltd we take real pride in finding solutions to problems, so whatever your expanded polystyrene needs, you can call on us to deliver

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