



SuperFOIL Insulation

Solutions Guide

Pitched Roof - Under Rafter

SF19+

Pitched Roof Under Rafter Solutions

CONSTRUCTION	THICKNESS	'R'-VALUE
EXTERNAL SURFACE	-	0.040
TILES / SLATES	10mm	-
BATTEN CAVITY	25mm	-
BREATHER MEMBRANE	1mm	-
RAFTER CAVITY	25mm	0.160*
ADDITIONAL INSULATION	SEE TABLE	-
RAFTER CAVITY	25mm	0.454
SF19+	45mm	1.630
BATTEN CAVITY	38mm	0.454
PLASTERBOARD	12.5mm	0.066
EXTERNAL SURFACE	-	0.100

SF19+ Combined With...

(Pitched Roof - Under Rafters @ 400mm Centres)

England	U Value (Wm ² K/W)	Foam Board		Mineral Wool	
		0.018 (Phenolic)	0.022 (PIR/PUR)	0.034 (Mineral Wool)	0.044 (Mineral Wool)
New Build	0.13	120mm	140mm	200mm	250mm
Extension	0.18	55mm	75mm	110mm	140mm
Renovation	0.18	55mm	75mm	110mm	140mm

Scotland	U Value (Wm ² K/W)	Foam Board		Mineral Wool	
		0.018 (Phenolic)	0.022 (PIR/PUR)	0.034 (Mineral Wool)	0.044 (Mineral Wool)
New Build	0.10	180mm	205mm	290mm	360mm
Extension	0.13	120mm	140mm	200mm	250mm
Renovation	0.15	90mm	105mm	160mm	200mm

Wales	U Value (Wm ² K/W)	Foam Board		Mineral Wool	
		0.018 (Phenolic)	0.022 (PIR/PUR)	0.034 (Mineral Wool)	0.044 (Mineral Wool)
New Build	0.11	160mm	180mm	260mm	320mm
Extension	0.15	90mm	105mm	160mm	200mm
Renovation	0.18	55mm	75mm	110mm	140mm

SF19+ Combined With...

(Pitched Roof - Under Rafters @ 600mm Centres)

England	U Value (Wm ² K/W)	Foam Board		Mineral Wool	
		0.018 (Phenolic)	0.022 (PIR/PUR)	0.034 (Mineral Wool)	0.044 (Mineral Wool)
New Build	0.13	110mm	125mm	200mm	230mm
Extension	0.18	55mm	70mm	110mm	130mm
Renovation	0.18	55mm	70mm	110mm	130mm

Scotland	U Value (Wm ² K/W)	Foam Board		Mineral Wool	
		0.018 (Phenolic)	0.022 (PIR/PUR)	0.034 (Mineral Wool)	0.044 (Mineral Wool)
New Build	0.10	160mm	185mm	270mm	360mm
Extension	0.13	120mm	125mm	200mm	250mm
Renovation	0.15	80mm	90mm	150mm	180mm

Wales	U Value (Wm ² K/W)	Foam Board		Mineral Wool	
		0.018 (Phenolic)	0.022 (PIR/PUR)	0.034 (Mineral Wool)	0.044 (Mineral Wool)
New Build	0.11	140mm	160mm	240mm	300mm
Extension	0.15	80mm	90mm	150mm	180mm
Renovation	0.18	55mm	70mm	110mm	130mm

Stated thickness are a minimum requirement to achieve the desired U-value, increasing the thickness will further improve the thermal performance.

- ✓ CERTIFIED HIGH PERFORMANCE
- ✓ SUITS ALL BUILD TYPES
- ✓ QUICK AND EASY TO INSTALL



CONSTRUCTION	THICKNESS	'R'-VALUE
EXTERNAL SURFACE	-	0.040
TILES / SLATES	10mm	-
BATTEN CAVITY	25mm	-
BREATHER MEMBRANE	1mm	-
RAFTER CAVITY	25mm	0.160*
ADDITIONAL INSULATION	SEE TABLE	-
RAFTER CAVITY	30mm	0.454
SF40	65mm	2.570
BATTEN CAVITY	50mm	0.454
PLASTERBOARD	12.5mm	0.066
EXTERNAL SURFACE	-	0.100

SF40 Combined With...

(Pitched Roof - Under Rafters @ 400mm Centres)

England	U Value (Wm ² K/W)	Foam Board		Mineral Wool	
		0.018 (Phenolic)	0.022 (PIR/PUR)	0.034 (Mineral Wool)	0.044 (Mineral Wool)
New Build	0.13	90mm	105mm	160mm	200mm
Extension	0.18	40mm	45mm	75mm	90mm
Renovation	0.18	40mm	45mm	75mm	90mm

Scotland	U Value (Wm ² K/W)	Foam Board		Mineral Wool	
		0.018 (Phenolic)	0.022 (PIR/PUR)	0.034 (Mineral Wool)	0.044 (Mineral Wool)
New Build	0.10	150mm	175mm	250mm	320mm
Extension	0.13	90mm	105mm	160mm	200mm
Renovation	0.15	65mm	75mm	110mm	150mm

Wales	U Value (Wm ² K/W)	Foam Board		Mineral Wool	
		0.018 (Phenolic)	0.022 (PIR/PUR)	0.034 (Mineral Wool)	0.044 (Mineral Wool)
New Build	0.11	130mm	150mm	220mm	260mm
Extension	0.15	65mm	75mm	110mm	150mm
Renovation	0.18	40mm	45mm	75mm	90mm

SF40 Combined With...

(Pitched Roof - Under Rafters @ 600mm Centres)

England	U Value (Wm ² K/W)	Foam Board		Mineral Wool	
		0.018 (Phenolic)	0.022 (PIR/PUR)	0.034 (Mineral Wool)	0.044 (Mineral Wool)
New Build	0.13	80mm	95mm	150mm	185mm
Extension	0.18	35mm	40mm	70mm	90mm
Renovation	0.18	35mm	40mm	70mm	90mm

Scotland	U Value (Wm ² K/W)	Foam Board		Mineral Wool	
		0.018 (Phenolic)	0.022 (PIR/PUR)	0.034 (Mineral Wool)	0.044 (Mineral Wool)
New Build	0.10	135mm	160mm	225mm	290mm
Extension	0.13	80mm	95mm	150mm	185mm
Renovation	0.15	60mm	70mm	110mm	135mm

Wales	U Value (Wm ² K/W)	Foam Board		Mineral Wool	
		0.018 (Phenolic)	0.022 (PIR/PUR)	0.034 (Mineral Wool)	0.044 (Mineral Wool)
New Build	0.11	115mm	135mm	200mm	250mm
Extension	0.15	60mm	70mm	110mm	135mm
Renovation	0.18	35mm	40mm	70mm	90mm

Stated thickness are a minimum requirement to achieve the desired U-value, increasing the thickness will further improve the thermal performance.

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CONSTRUCTION	THICKNESS	'R'-VALUE
EXTERNAL SURFACE	-	0.040
TILES / SLATES	10mm	-
BATTEN CAVITY	25mm	-
BREATHER MEMBRANE	1mm	-
RAFTER CAVITY	25mm	0.160*
ADDITIONAL INSULATION	SEE TABLE	-
RAFTER CAVITY	40mm	0.454
SF60	100mm	2.570
BATTEN CAVITY	75mm	0.454
PLASTERBOARD	12.5mm	0.066
EXTERNAL SURFACE	-	0.100

SF60 Combined With...

(Pitched Roof - Under Rafters @ 400mm Centres)

England	U Value (Wm ² K/W)	Foam Board		Mineral Wool	
		0.018 (Phenolic)	0.022 (PIR/PUR)	0.034 (Mineral Wool)	0.044 (Mineral Wool)
New Build	0.13	65mm	75mm	120mm	140mm
Extension	0.18	15mm	20mm	30mm	40mm
Renovation	0.18	15mm	20mm	30mm	40mm

Scotland	U Value (Wm ² K/W)	Foam Board		Mineral Wool	
		0.018 (Phenolic)	0.022 (PIR/PUR)	0.034 (Mineral Wool)	0.044 (Mineral Wool)
New Build	0.10	120mm	140mm	200mm	250mm
Extension	0.13	65mm	75mm	120mm	140mm
Renovation	0.15	40mm	45mm	75mm	90mm

Wales	U Value (Wm ² K/W)	Foam Board		Mineral Wool	
		0.018 (Phenolic)	0.022 (PIR/PUR)	0.034 (Mineral Wool)	0.044 (Mineral Wool)
New Build	0.11	100mm	120mm	170mm	210mm
Extension	0.15	40mm	45mm	75mm	90mm
Renovation	0.18	15mm	20mm	30mm	40mm

SF60 Combined With...

(Pitched Roof - Under Rafters @ 600mm Centres)

England	U Value (Wm ² K/W)	Foam Board		Mineral Wool	
		0.018 (Phenolic)	0.022 (PIR/PUR)	0.034 (Mineral Wool)	0.044 (Mineral Wool)
New Build	0.13	55mm	70mm	110mm	135mm
Extension	0.18	10mm	15mm	30mm	35mm
Renovation	0.18	10mm	15mm	30mm	35mm

Scotland	U Value (Wm ² K/W)	Foam Board		Mineral Wool	
		0.018 (Phenolic)	0.022 (PIR/PUR)	0.034 (Mineral Wool)	0.044 (Mineral Wool)
New Build	0.10	110mm	125mm	190mm	240mm
Extension	0.13	55mm	70mm	110mm	135mm
Renovation	0.15	35mm	40mm	70mm	90mm

Wales	U Value (Wm ² K/W)	Foam Board		Mineral Wool	
		0.018 (Phenolic)	0.022 (PIR/PUR)	0.034 (Mineral Wool)	0.044 (Mineral Wool)
New Build	0.11	90mm	105mm	160mm	200mm
Extension	0.15	35mm	40mm	70mm	90mm
Renovation	0.18	10mm	15mm	30mm	35mm

*Stated thickness' are a minimum requirement to achieve the desired U-value, increasing the thickness will further improve the thermal performance.

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Fixing Instructions

Pitched Roof - Under Rafter

SuperFOIL is installed tight under the pitched roof timber rafters, from the ridge to the eaves, using the correct size galvanized or stainless-steel staples at 300mm intervals. See table for correct sizes.

Care should be taken to ensure overlaps are at least 50 mm and taped over with 100 mm Superior Foil Tape.

The sealing of the joints around openings such as windows, pipes and ventilation ducts should be completed with 100 mm Superior Foil Tape to maximise the vapour tightness. Particular attention should be paid to the fastening of any penetrations through the products.

At eaves, the products should be trimmed, stapled and then then sealed with 100 mm Superior Foil Tape to the timber wall plate.

The products are then further held in place by the correct size timber battens installed horizontally at no greater than 600 mm centres. Additional timber battens are installed around windows or sky lights.

Where necessary, 100 mm Superior Foil Tape should be applied to any tears, cuts or joints.



Plasterboard is then fixed to the timber battens in accordance with the manufacture's guidance.

Where required, install additional insulation at the desired thickness between rafters in accordance with the manufacture's guidance, ensuring cavities are left both above and below the SuperFOIL to the recommend depths for the product. See table for correct depths.

Additional layers of SuperFOIL or insulated plasterboard can be used to remove the need for insulation between rafters, for bespoke u-value calculation contact technical@superfoil.co.uk.

SuperFOIL Technical Details

	SF19+	SF40	SF60
Thickness	45mm	65mm	100mm
Compressed Thickness	8mm	11mm	16mm
No. of Layers	11	37	55
Weight	0.87 Kg/m ²	1.17 Kg/m ²	1.48 Kg/m ²
Length	10m	10m	8m
Width	1500mm	1500mm	1500mm
Area	15m ²	15m ²	12m ²
Core Performance	1.64	2.57	3.58
Emissivity	0.05	0.05	0.05
Total 'R' Value	2.49	3.48	4.49
Cavity size above SuperFOIL	25mm	30mm	40mm
Batten size below SuperFOIL	38mm	47mm	75mm
Staple size	14mm	30mm	40mm

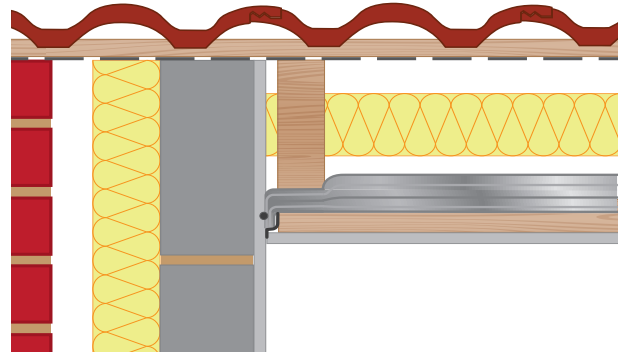
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Installation Details

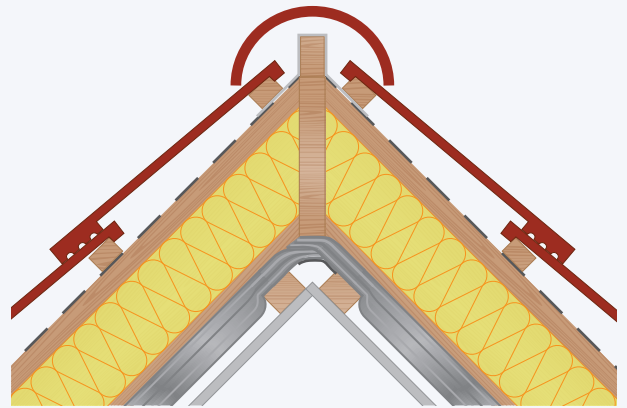
Roof to Wall Detail

When connecting SuperFOIL to plaster finished, brick or block walls, dress SuperFOIL approx. 50mm onto the wall. Fold back the SuperFOIL and apply sealant as a continuous 8mm bead under the edge of the folded back SuperFOIL. Apply the SuperFOIL to the sealant and tape over with 100mm Superior Foil Tape.



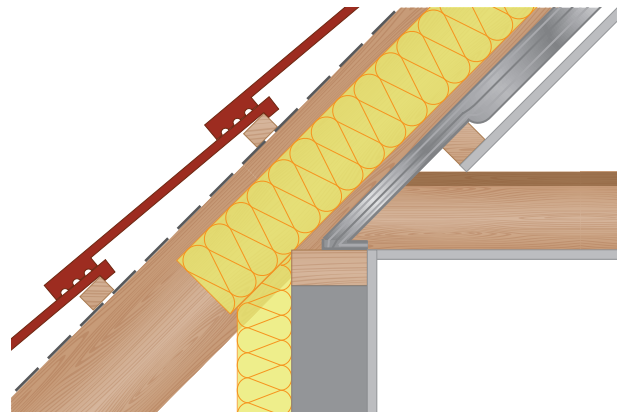
Ridge Detail

At the ridge install the SuperFOIL along or down the rafters starting at the ridge ensuring the SuperFOIL overlaps the ridge beam. Fix SuperFOIL to the ridge beam with staples. Complete the first section of roof. When installing the opposing side of roof, start at the ridge ensuring the SuperFoil overlaps the ridge beam and previously installed SuperFOIL by a minimum of 50mm, secure in place with staples and seal the joint with 100mm Superior Foil Tape.



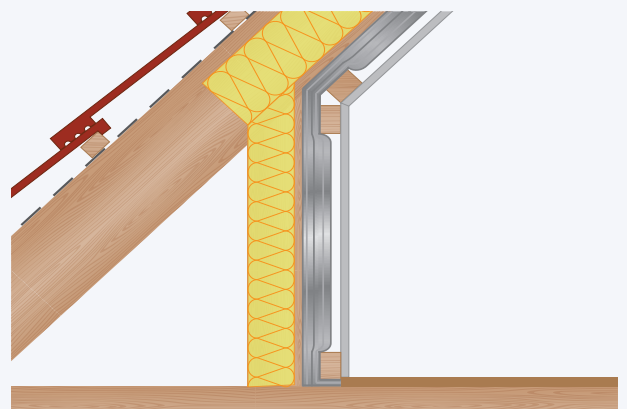
Eaves Detail

At eaves, the SuperFOIL should be trimmed with sufficient material to overlap the timber wall plate. The SuperFoil should be stapled and then sealed with 100 mm Superior Foil Tape to form an airtight seal to the wall plate. If sealing to plaster finish, brick or block fold back the SuperFOIL and apply sealant as a continuous 8mm bead under the edge of the folded back SuperFOIL. Apply the SuperFOIL to the sealant and tape over the joint with 100mm Superior Foil Tape.



Dwarf Wall Detail

At the dwarf wall continue the SuperFOIL down the studs to the floor joists sealing to base of dwarf wall to ensure air tightness. The products are then further held in place by the correct size timber battens installed horizontally at no greater than 600 mm centres.

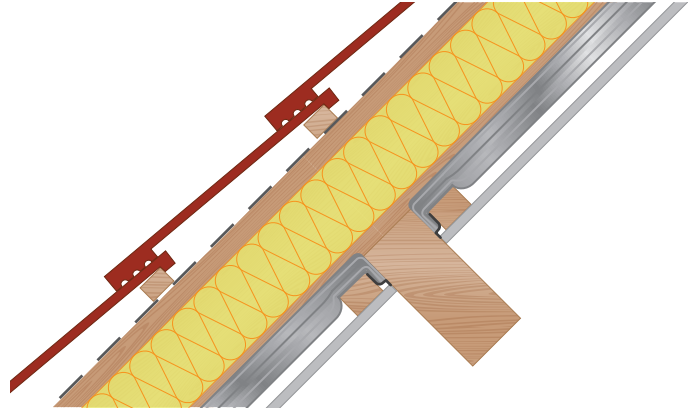


Installation Details

Fixed Between Purlins Detail

Fix SuperFOIL to the rafters ensuring at the Purlins the SuperFOIL is dressed up the purlins and stapled in place, To create an airtight seal use 100mm Superior Foil Tape.

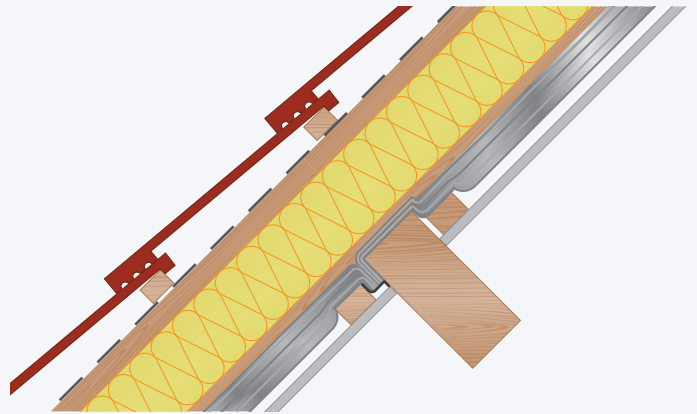
The products are then further held in place by the correct size timber batten installed horizontally creating a tight seal between the SuperFOIL and purlins.



Fixed Behind Purlins Detail

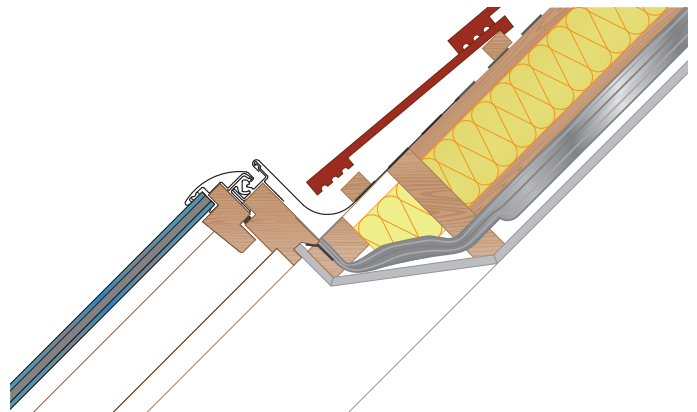
Fix SuperFOIL to the rafters, at the Purlins the SuperFOIL should be cut and dressed behind the purlins. Use 100mm Superior Foil Tape to seal the SuperFOIL to the rafters and purlins to ensure an airtight seal.

The products are then further held in place by the correct size timber batten installed horizontally in the usual manner.



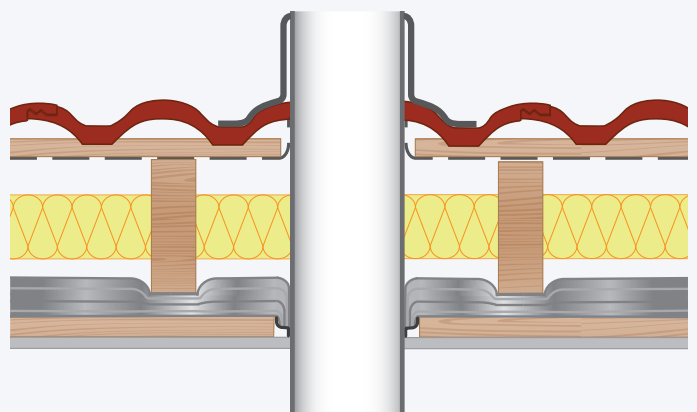
Roof Windows Details

To finish SuperFOIL around Skylights or Dormer Windows trim the SuperFOIL up to the frame, where possible staple the SuperFOIL to the surrounding framework and seal to the skylight or window using 100mm Superior Foil Tape.



Penetration Details

At penetrations such as vent ducting, pipework etc, SuperFOIL should be trimmed to ensure there are no gaps around the penetration. Using 100mm Superior Foil Tape ensure the SuperFOIL is well sealed around the penetration to create an airtight barrier. This can be achieved by using small sections of tape and working around the penetration.





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