

Super**FOIL**

Insulation

Installation Guide

Pitched Roof

Over-Rafter

Preparing for the Installation Process

Assessments to Complete Before Installation

- Inspect the work area for any existing damage that may require repairs.
- Confirm and measure the insulation areas and required material quantities.
- Check for dampness, condensation, or mould.
- Check for issues with penetrating dampness.
- Verify that checks for asbestos-containing materials are complete.
- Arrange to isolate or remove services (gas, electric, water, etc) if needed.
- Assess the condition of surrounding areas for suitability.
- Plan for scaffolding or ladders, ensuring proper safety measures are in place for workers.
- Take into account the prevailing weather conditions that may impact both the timing and duration of the project. The product should be covered within 48hrs after installation.
- Plan for any shelter/tarpaulins that may be required to protect any exposed structure and insulation before, during and after installation
- Confirm any local building regulations or restrictions that need to be adhered to during the roofing job.
- Fully read this guide (before beginning installation).

Recommended Batten Sizes

| Product Size | Batten Size | Staple Size |
|--------------|-------------|-------------|
| 15mm | 25mm | 14mm |
| 25mm | 38mm | 14mm |
| 50mm | 50mm | 14mm |
| 75mm | 50mm | 25mm |
| 100mm | 63mm | 30mm |



Maintaining Existing Ventilation To A Property

All ventilation outlets on the roof should be preserved as required to ensure adequate ventilation into the property is maintained. It is important to note that, where the thermal insulation of the roof is improved, consideration is given to Part F of Building Regulations – ventilation.

Making Provisions To Electrical Points/Service Protrusions

Service protrusions indicate any feature which has to pass through the SuperFOIL product: such as pipes or electrical cables. Where these protrusions are needed, cut a small hole in the insulation to allow the protrusion to pass through. This hole should be no larger than is necessary for the protrusion to pass through snugly. Once the protrusion has been fully fed through, it should be fully sealed to the insulation in accordance with the guidance provided in the cutting and sealing sections of this document.

If in doubt, consult a qualified Heating Engineer or electrician. All electrical work must comply with Approved Document P, the relevant IEE Regulations, and associated guidance.



Internal/External Considerations

- Check that roofs, guttering, downpipes, and rainwater systems are functioning properly.
- Verify that windows are intact with no signs of water leakage.

Recommended System Components

SuperFOIL Breathable Product

Easy to transport and lightweight rolls.



SuperFOIL Breathable Tape

High performance, reinforced, paper-backed foil tape.



Timber Battens

Treated timber battens sizes to suit the application.



Roof Tiles

Appropriate roofing tiles to be used as an external finishing material.



Mechanical Fixings and Staples

High performance mechanical fixings to secure battens to the rafters.

High performance mechanical fixings to secure counter battens to the rafters.

Galvanised or stainless steel staples.



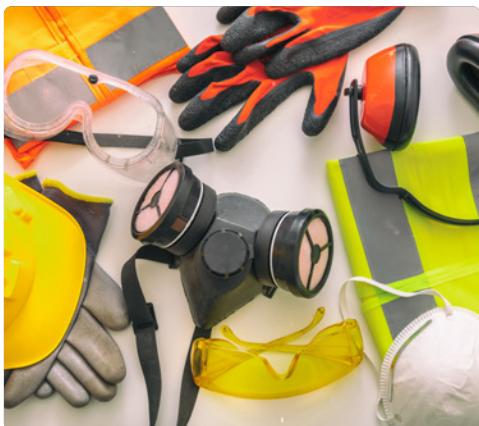
Note: Depending on the requirements of your insulation project, you may require additional materials – such as mastic sealant. If you are unsure about the suitability of any of these materials for use alongside SuperFOIL, we encourage you to contact our technical team.

Tools Required

As with all External Insulation systems, a range of tools will be required in order to complete the work as easily as possible. A list of these are shown below. From our experience, the ones marked in bold are essential and should form part of your tool kit for getting SuperFOIL Breathable products installed to the highest standard possible.

Recommended Tools:

- **Hand tools:** including hammer, saw, spirit levels
- **Bladed tools:** including heavy-duty craft knives, spare blades, heavy duty shears and a rotary cutter.
- **Saws:** including a circular saw and reciprocating saw (both suitable for cutting battens)
- **Power tools:** including a drill and driver
- **Access equipment:** including ladders or scaffolding if required



Personal Protection Equipment As Required:

- **FFP3 Dust Mask**
- **Safety Goggles**
- **Hearing Protection**
- **Hard Hat**
- **Hi-Vis Vest**
- **Safety Boots**
- **Gloves**

SuperFOIL products are flexible. This means that care must be taken when these rolls are laid out over potentially hazardous materials, such as holes or sharp materials, since SuperFOIL will not support the weight of any person who walks on top of it. When SuperFOIL must be rolled out like this, we suggest using warning signs to indicate that the product must not be walked on.

Installing SuperFOIL

Installation Details

Start at the bottom of the roof, at the eaves support tray/guttering. Ensure the SuperFOIL is properly aligned with the edge of the roof, then secure it by stapling the start of the roll to your rafter.

Once secured, you can begin to unroll the product out horizontally across the rafters. Take care to ensure that the roll is properly aligned with the bottom of your roof before further securing (details on securing the insulation on page 7).



We highly recommend using counter battens alongside any SuperFOIL insulation product.

If you are using counter battens before installing your tile battens, then you should ensure that the insulation is pulled taut whilst being fixed into place to ensure the product doesn't drape between the rafters.

Take care to avoid applying too much tension to the product, as this could cause unnecessary stress to the insulation.



Alternatively, if you decide to apply the tile battens directly to the insulation layer, you need to ensure that the product is draped between the rafters to create a 10mm gap (at least) under the tile battens to allow water run-off.

Take care to avoid draping too much of the product between the rafters, as this will reduce the overall coverage of your insulation and could negatively impact performance.



Properly securing the insulation is essential. To do this, you should first compress the SuperFOIL and then staple it to the rafters using appropriate staples (refer to page 2 for staple sizing).

The SuperFOIL should be secured to the rafter at regular intervals of no more than 300mm. Before securing, take care to ensure that the tension/draping of the product is correct for your needs.

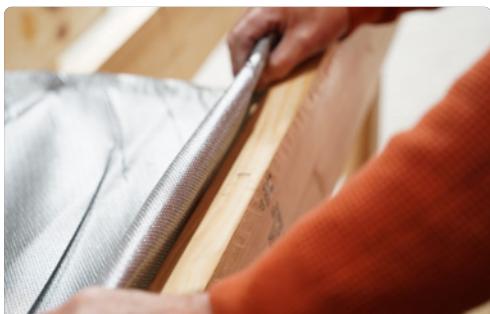


At the wall plate you should ensure that the insulation layers (beneath the breathable membrane top layer) overlap it slightly.

Once that is done, you can use the built in 100mm flap of breathable membrane to overlap into the eaves support tray. You can then seal the flap in place by peeling the backing off the integrated double sided tape. Refer to the guidance given on page 15 for specific guidance.

When finishing a roll in the middle of the roof, turn back the insulation's breathable membrane top layer to expose the insulation layers. Trim these insulation layers to ensure they line up with the centre of the last covered rafter (refer to page 10). Take care not to damage the breather membrane top layer as you do this.

Place the new roll of insulation butt jointed to the cut insulation and then secure both into place. Finally, place the breathable membrane top layer back over the insulation, covering the joint, and seal using SuperFOIL Breathable tape.



At the end of the roof, turn back the insulation's breathable membrane top layer to expose the insulation layers. Trim these insulation layers (refer to page 10) to ensure they line up with the outer edge of the roof. Take care not to damage the breather membrane top layer as you do this.

Finally, you can take the top layer and wrap it under the rest of the insulation to create a watertight edge.

Once wrapped, staple onto the rafter to secure the new edge, making sure that you staple through the overlapped membrane layer as you do.

When starting the next run, ensure that the built in 100mm breathable membrane flap is overlapping the previous run.

Secure the new run in place using appropriate staples (refer to page 2) at intervals no larger than 300mm, then continue the installation following the same process as previously described.

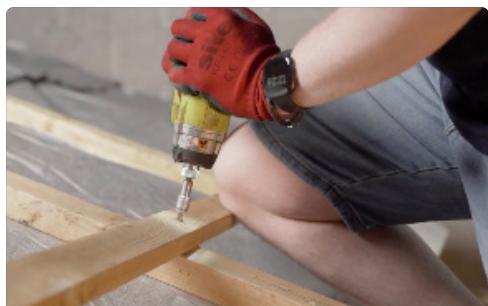


Sealing the 100mm overlap between runs is vital to the airtightness of the installation.

When using a SuperFOIL Breathable product, then this can be done using the integrated tape included on the built-in overlap. Simply remove the backing from the tape, position the overlap and apply firm pressure to ensure a secure joint.

When installing counter battens, ensure you are using appropriately sized timber battens (refer to page 2) parallel to the rafters.

This will ensure an adequate gap to allow water runoff beneath the tile battens; which can then be secured directly to the counter battens.



This product is a secondary rain barrier and should be covered within 48 hours of installation. If the permanent roof covering cannot be immediately installed, use tarpaulins or similar weather protection as a temporary measure.

Cutting SuperFOIL

When cutting SuperFOIL insulation, there are a few different methods to consider based on the tools available and the specific cutting needs. Below are the recommended methods:

● Utility Knife:

This method works well for standard cuts. Using a timber batten, straight edge or similar, ensure the insulation is fully compressed before cutting. This also provides a guide to maintain straight, accurate cuts.



● Electric Rotary Cutter:

This method is effective for larger projects where frequent cuts are required. The rotary-cutter provides efficient cuts with minimal effort. Before cutting, mark the cutting line on the insulation as a guide. Keeping the material pulled taut while cutting helps ensure a clean cut.



● Heavy-Duty Shears:

Ideal for use in tight spaces or areas where more control is needed. Also helpful when cutting around penetrations such as pipework, ducting etc. Mark the product before cutting to ensure accuracy. Shears allow you to cut into hard-to-reach areas while maintaining control over the material.



● Trimming the Insulation Layers

Peel back the membrane top layer to the required distance. Then use shears to trim the insulation layers along the edge of the membrane, taking care not to damage the membrane itself.



Importance of Airspaces

The inclusion of appropriate air gaps is vital to maximise the performance of SuperFOIL insulation. When included properly these airspaces provide: A significant increase in effective R-Value AND a reduction in all 3 forms of heat loss – reflecting up to 95% of radiant heat while also reducing conduction and convection.

To guarantee these benefits the use of appropriate battens is essential (refer to the table on page 2). Air spaces must be included on both sides of the insulation for the maximum benefit.



Maintaining Airspaces with Additional Insulation

If you are installing additional insulation, such as mineral wool or PIR, between the rafters, you'll need to ensure there is adequate air space to accommodate the air gaps needed for your SuperFOIL product.

This requires an open cavity depth equal to the required batten thickness (shown on page 2). If the space is insufficient, an additional batten will need to be installed before SuperFOIL is applied. The thickness of this batten can be combined with the cavity depth in order to meet the batten thickness requirements.



Ridge Detail

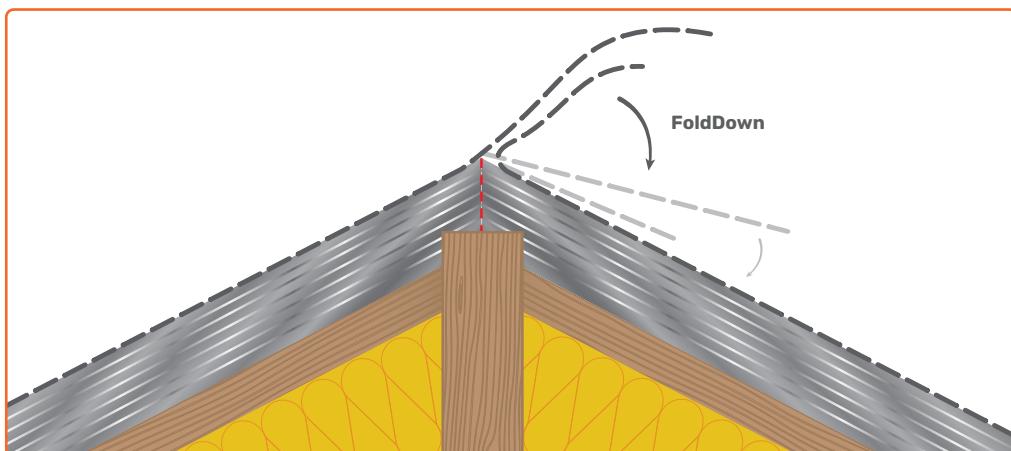
When you reach the ridge, you should then peel back the breathable membrane top layer of the insulation – by at least 300mm – then trim the insulation layers until they align with the middle of the ridge.

Once trimmed, securely staple the insulation layers in place and leave the breathable membrane top layer folded back away from the ridge and over the top of the insulation. Repeat this process as necessary for each run of insulation.

Next, mirror this process on the opposite side of the ridge butt-jointing the insulation layers where they meet one another atop the ridge, taking care to ensure that the entire ridge is covered with insulation.

The folded back breathable membrane top layer from one side of the ridge (either side) should be folded over the ridge so that it rests atop the folded back membrane on the other side. The lower membrane should be trimmed to fall completely underneath the top membrane by approximately 150mm. Both membranes should then be stapled into the rafters below.

Finally, the edge of the overlapping membrane should be sealed with SuperFOIL Breathable tape. You can now secure the insulation by fixing counter battens according to the guidance given on page # of this document.



Hip Detail

Unroll your chosen insulation across the rafters up to the hip, taking care to follow the insulation steps outlined in pages 6 to 9 as you do.

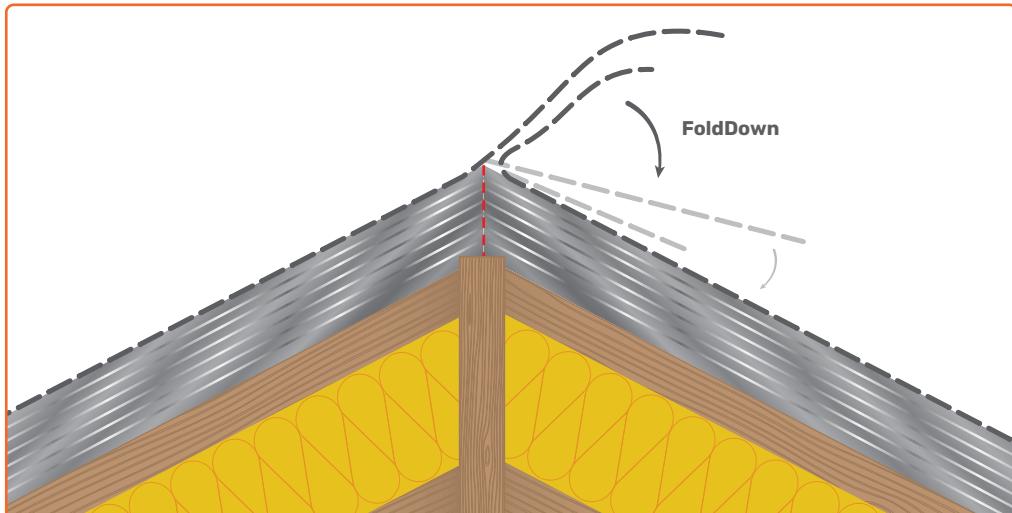
Where your insulation meets the hip, use a batten or other long straight edge to carefully draw a guide line marking the hip on the surface of your insulation.

Carefully fold back the breathable membrane top layer at the guide line, then trim the insulation layers to match that line being careful not to damage the breathable membrane layer. Staple the insulation layers to the rafters.

Mirror the above steps on the opposite side of the hip, taking care to ensure that the insulation layers are properly butt jointed together.

Finally, take one of the folded back membrane top layers and fold it over the hip and on top of the other membrane top layer. Ensure that the first membrane fully covers the second and achieves 150mm of overlap, then staple and seal both in place. This will create a waterproof seal.

If using counter battens, you can now apply appropriately sized battens (refer to page 2 for batten sizing) parallel to the rafters. These will further secure the insulation in place.



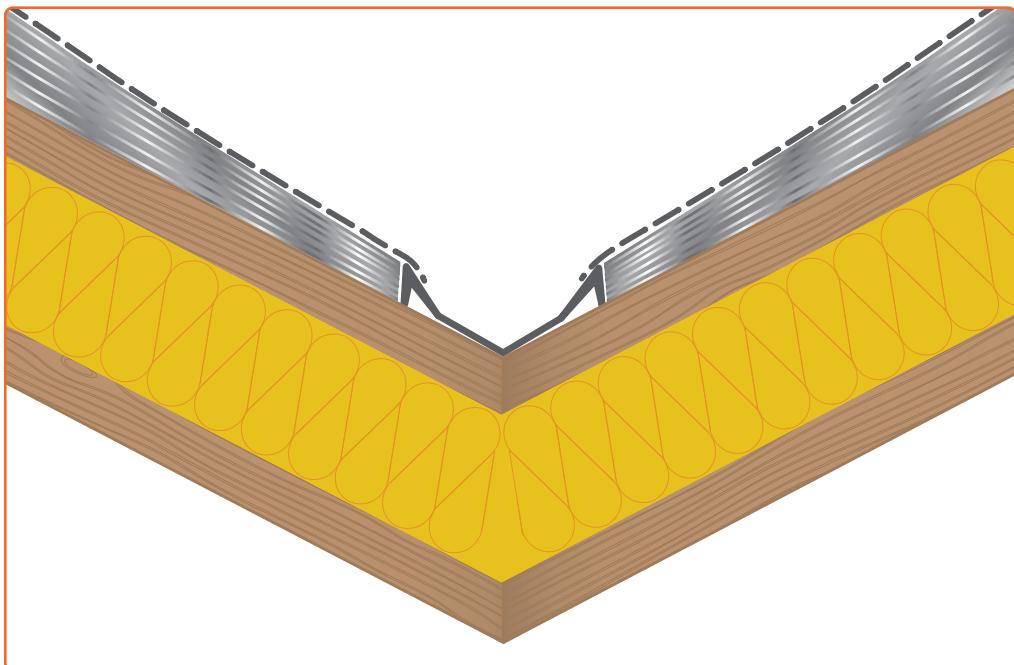
Valley Detail

Unroll your insulation horizontally across the rafters and overlap it into the valley tray/gutter. Secure it into place along the rafters, following the guidance given on pages 6 to 9.

Referring to the instruction on “Trimming the Insulation Layers” given on page 10, carefully cut the insulation layers to match the line of the valley, leaving 100mm of overlap draped into the valley tray/gutter.

Turn back the top breathable membrane, exposing the insulation layers and cut them back to the edge of the valley tray/gutter; take care not to cut or damage the outer breather membrane layer as you do so. This will allow you to leave only the membrane layer in the valley gutter.

Finally, you should mirror this process for the adjoining rafters, taking care to match the line of the opposing valley. You should then staple the insulation layers in place at the edge of the valley, and seal the membrane layer in place following the guidance given for the Eaves Detail below.



Eaves Detail

At the Eaves, it is essential that you ensure the breathable membrane is overlapped into the Eaves Tray or Guttering. To do this, you can overlap the built in 100mm breathable membrane flap into the Tray/Guttering. When you do so, it is important that you fully seal the overlap into place by peeling back the integrated double-sided tape, placing it against the Tray/Guttering and applying even pressure to ensure a secure seal.

If you cannot use the built-in 100mm flap for any reason, then you should trim the insulation layers from the bottom of your product to create an appropriate overlap from the breathable membrane top layer (following the guidance on page 10). You can then seal this overlap in place using a suitable sealant/tape beneath the overlap.

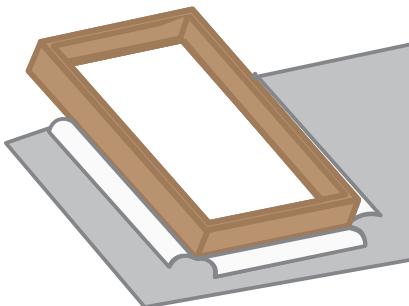
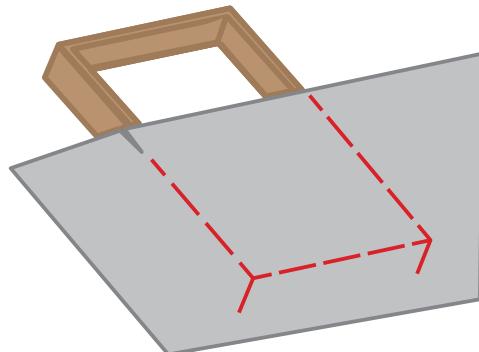
It is essential that the breathable membrane overlaps into the Tray/Guttering at an angle that allows water runoff to flow directly into the Tray/Guttering. This might mean that you need to install a fillet beneath the membrane to prevent sagging.



Window & Roof Lights

Roll SuperFOIL over the window area and mark the position of the window on the surface of the insulation. Measure the depth of the window box, and extend the "window marking" inwards by that amount.

Next, using appropriate cutting tools (refer to page 10) cut the breathable membrane top layer along the cutting lines. Remove the separated section of the top layer and cut the insulation layers in the same way.

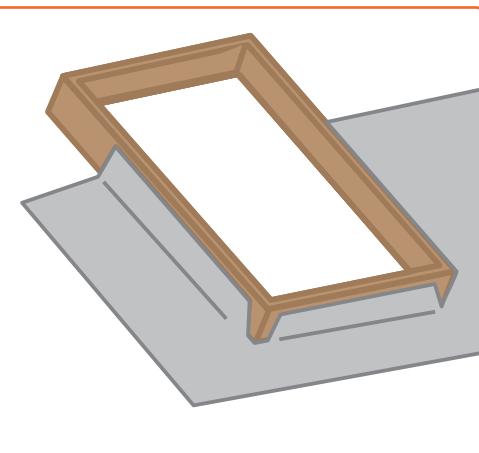


Fold back the newly cut flaps in the top layer, then carefully trim the insulation layers beneath until they align with the edges of the window box. The insulation layers should now fit snugly around the window box.

Fold the membrane top layer back against the window box so that you can securely staple the insulation to the window frame.

Finally, ensure that the membrane flaps are folded up and against the window sides, so that they align with the top of the window box. Once you're sure that the flaps are properly placed, you should staple the membrane to the box and then seal the edges using SuperFOIL Breathable tape.

When dressing the window, please refer and adhere to the manufacturer's recommendations.



SIGN-OFF SHEET

Start Date Completion Date **Project Name:**

- Has the roof been inspected for suitability, safety, and potential existing damage?
- Has the product been cut and trimmed to size?
- Has the product been stapled at intervals no greater than 300mm?
- Have all joints and overlaps been taped using suitable waterproof tape?
- Have correctly sized counter battens been installed?
 - If not, has the insulation been appropriately draped between the rafters?
 - If yes, has an adequate gap been left to allow water runoff under the tile battens?
- Have you taken photos of the installation process at each stage—before, during, and after completion?

Clients comments **Project managers comments** Client Signature: Project Manager
Signature: Date: Date:

SuperFOIL

Insulation

Change the way you insulate.

SuperFOIL offers high-performing multifoil insulation solutions for trade contractors, professionals and DIY projects through stockists, retail and online outlets. We are committed to providing you with the best solution – through honest, expert, technical advice.



Technical support

- U-Value Calculations
- Condensation Risk Analysis
- Specification Advice
- Free Discovery Sessions



Sustainable

- 40% Recycled Material
- Minimal Wastage
- Zero Waste to Landfill
- Reduced CO2 Emission



3 In 1 Multifoil

- Reflective Foil Insulation
- Vapour Control Layer
- Radiant Barrier
- Certified High Performance



Application

- Roof, Wall & Floor
- New Build & Retrofit
- DIY Solutions
- Free Discovery Sessions

SuperFOIL

Insulation

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