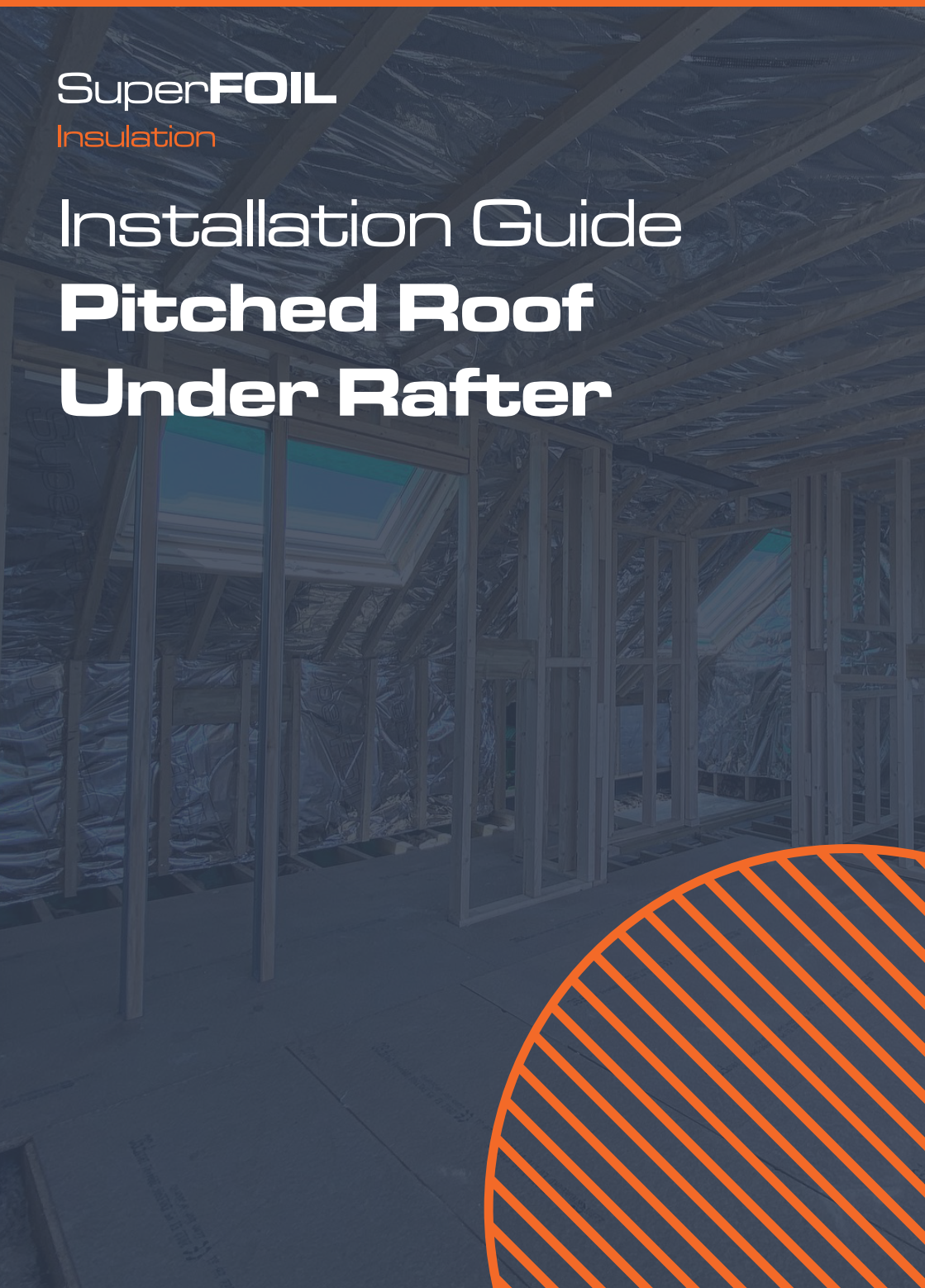
SuperFOIL
Insulation

Installation Guide
Pitched Roof Under Rafter



Assessments to Complete Before Installation

- Inspect the work area for any existing damage that may require repairs before re-roofing.
- Confirm and measure the insulation areas and required material quantities.
- Arrange for isolating or removing services (gas, electric, water, telephone) if needed.
- Verify that checks for asbestos-containing materials are complete.
- Assess the condition of surrounding areas (e.g., floors, walls, ceilings) 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.
- 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.
- Fully read this guide (before starting the installation).

Sockets & Other Wall Outlets

Sockets (plug, aerial and data) on existing walls may need to be repositioned with the need to bring cables forward. Work of this type is not classified as 'notified work' according to Approved Document P, 2013 and can typically be carried out by a suitably competent person. See extended detail below on electrical points.

All electrical work should be completed in accordance with Approved Document P, the relevant part of the current IEE Regulations and associated guidance.

Recommended Batten and Staple Sizes

Product Size	Batten Size	Staple Size
15mm	25mm	14mm
25mm	38mm	14mm
50mm	50mm	14mm
75mm	50mm	25mm
100mm	63mm	30mm
125mm	75mm	35mm
150mm	90mm	40mm

Making Provisions To Electrical Points/Service Protrusions

We use the term service protrusions to indicate any feature which has to come through the SuperFOIL material to the interior of the room. These can be (not exclusively) radiator pipes, electrical points and cables, television, telephone and data cables. Where these need to come through the first layer, cut a small hole until these have been fully fed through and then carefully seal using the SuperFOIL MultiFOIL tape. It is important that you seal this protrusion fully so it remains properly airtight and should be carried out by a suitably competent person. Please see sections below for further information on specific situations.

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.

Copper Pipes

When pulling copper pipes through, ensure there is enough flexibility to move them forward by approximately 100mm. Wrap the copper pipe in a non metallic insulation material to prevent direct contact with aluminium in the SuperFOIL, as this can cause a reaction. While the reaction is not harmful, avoiding it helps maintain the system's longevity.

If copper pipes need to be extended, the work should be carried out by a suitably qualified person following building regulations.

Take care when using any naked flame during the extension process, ensuring it does not come into contact with wooden battens or the SuperFOIL insulation layer.

Note: 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.

Maintaining Existing Ventilation To A Property

All existing ventilation outlets should be maintained as required to ensure adequate ventilation to the property.

It is important to note that where improvements in terms of thermal insulation, consideration is given to Part F of the Building Regulations – ventilation.

Storage and Handling

SuperFOIL products should be stored in a clean, dry place; away from direct sunlight. Indoor storage is recommended. SuperFOIL products should never be stored while wet, as this can lead to damage to the reflective nature of the product's outer layer among other complications.

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 Multifoil Product

Easy to transport and lightweight rolls.

SuperFOIL Tape

High performance, reinforced, paper-backed foil tape.

Timber Battens

Treated timber battens sizes to suit the application.

Plasterboard

12.5mm standard plasterboard

Mechanical Fixings and Staples

High performance mechanical fixings to secure battens.

Appropriately sized staples as per the chart on page 3.

Plasterboard Screws.

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 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 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.

Installation Details

SuperFOIL can be installed either horizontally or vertically.

When installing horizontally, we recommended starting at the top of the roof and working downwards, ensuring to overlap the layers at each joint by a minumum of 50mm.

When installing the insulation vertically, start by securing the SuperFOIL at the high point of the rafters and roll the product down securing as you go along.

To properly secure SuperFOIL, it's important to remove excess slack on the insulation by applying gentle tension before stapling through the product into the rafters.

Take care to ensure that the space between each staple is no greater than 300mm and that you are using appropriately sized staples (refer to page 3 for details).

At the eaves, carefully trim the SuperFOIL around the rafters and securely seal it to the wall plate or to the cavity wall insulation, if applicable.

It's important to seal all joints, tears and cuts using SuperFOIL Multifoil tape to ensure an airtight finish. This will help prevent air leakage, improve the thermal performance of the insulation, and maintain condensation control.

Be meticulous in sealing all areas to ensure the effectiveness, integrity, and moisture resistance of the installation.

Refer to page 9 for specific guidance on how to properly cut and seal SuperFOIL products.

Complete your installation by securing counter battens horizontally over the insulation, ensuring they are spaced no more than 600mm apart. Make sure the battens are firmly fixed to provide a solid foundation for the internal finish.

Attach your chosen internal finish, such as plasterboard, to the battens in accordance with the manufacturer's instructions. This step is crucial for maintaining the insulation's effectiveness and ensuring the overall stability and quality of the installation.

Following these steps will ensure the best quality of installation in the majority of situations. However, certain details of your build-up may require specific techniques to properly insulate. For further guidance on how to best approach these specific details, please refer to page 11 and on.

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 accurate 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.

- **Sealing the cut edges:**

After cutting, it is important to seal the cut edges. Use SuperFOIL MultiFoil Tape to ensure the edges are properly sealed, helping to maintain the product's integrity and airtightness.

Importance of Sealing All Cuts and Overlaps

To ensure aitight installation the installer should take care to seal all joints (ceiling, floor, and wall) where the SuperFOIL meets an adjoining surface. Double-sided tape can also be used between joints to enhance the seal. Special attention should also be given to penetrations in the SuperFOIL, which should be sealed using SuperFOIL MultiFOIL Tape.

Please refer to page 11 and onward for specific instruction on how to best seal particular joints, junctions, and penetrations.

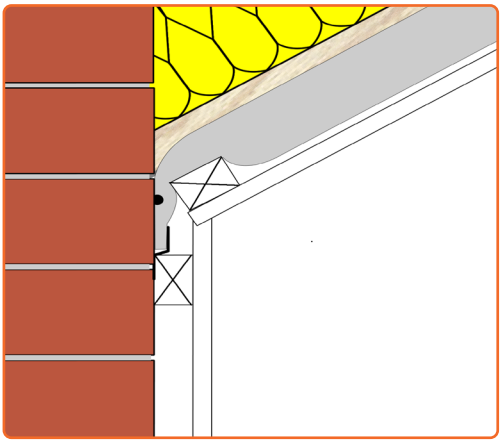
Importance of Airspaces in Installation

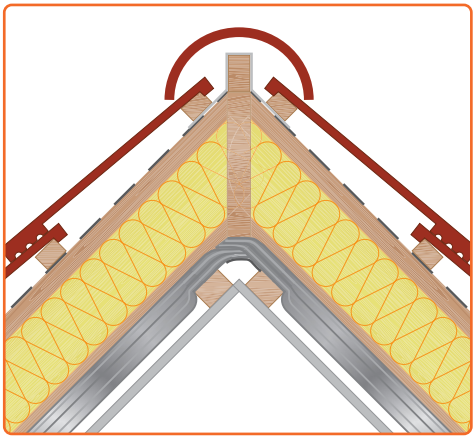
To maximise SuperFOIL's performance, ensure you are using the correct sized battens for the SuperFOIL product, this will ensure the correct airspace is achieved.

Air spaces on both sides help reduce heat conduction, and the airtight design prevents heat loss through convection. Without an airspace, radiant heat turns into conductive heat, reducing the insulation's effectiveness. Maintaining an airspace allows SuperFOIL to reflect up to 95% of radiant energy.

Roof to Wall Detail

When connecting SuperFOIL to solid brick, or block walls, extend the SuperFOIL approx. 50mm onto the wall.
Fold it back, apply an 8mm continuous bead of mastic sealant under the folded edge, and press the SuperFOIL into the sealant. Secure with staples if possible, then seal the joint with 100mm SuperFOIL MultiFOIL Tape.



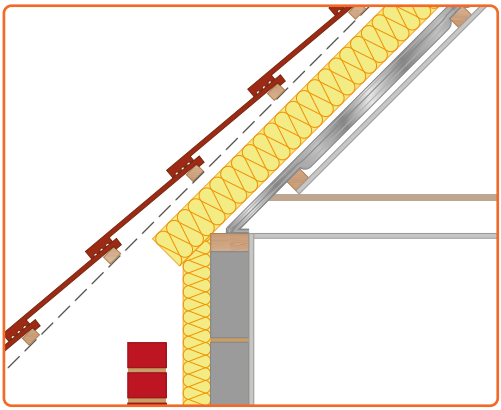


Ridge Detail

At the ridge, install SuperFOIL along or down the rafters starting at the ridge, ensuring it overlaps the ridge beam. Secure the SuperFOIL to the ridge beam with staples. For the opposing roof side, overlap the SuperFOIL over the ridge beam and previously installed material by at least 50mm, secure with staples, and seal with 100mm SuperFOIL MultiFOIL Tape.

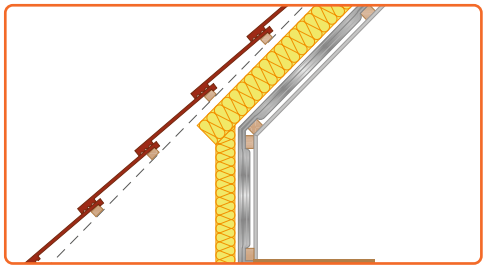
Eaves Detail

Trim SuperFOIL at the eaves to overlap the timber wall plate. Staple to the wall plate and seal with 100mm SuperFOIL MultiFOIL Tape for an airtight seal. If sealing to plaster, brick, or block, fold back SuperFOIL, apply an 8mm bead of mastic sealant under the edge, then tape over the joint with 100mm SuperFOIL MultiFOIL Tape.



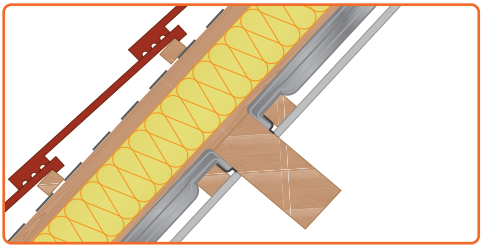
Dwarf Walls

Extend SuperFOIL down the studs to the floor joists, sealing at the base of the dwarf wall for airtightness. Secure with timber battens horizontally at no greater than 600mm centres.

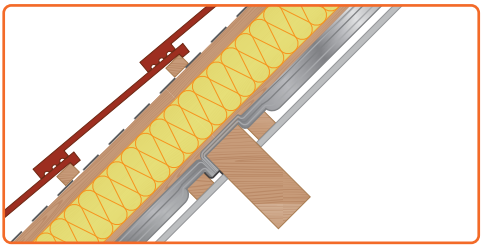


Purlins Detail

At the purlin, pass the SuperFOIL behind the purlin with enough product to join the next piece of insulation, ensuring to tape the joint with SuperFOIL foil tape.

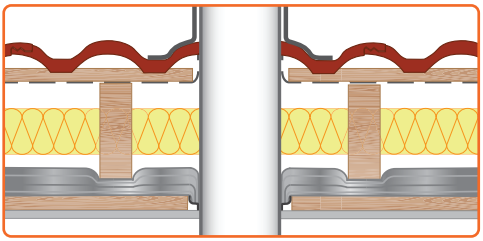


If access behind purlins is unavailable, fix SuperFOIL to the rafters, dressing it up the purlins and securing with staples. Seal with 100mm SuperFOIL MultiFOIL Tape, and further secure with horizontally installed timber battens to create a tight seal.



Penetration Details

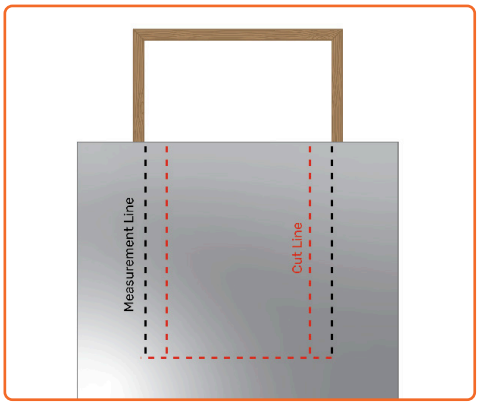
At penetrations such as vent ducting, pipework etc, SuperFOIL should be trimmed to ensure there are no gaps around the penetration.



Using 100mm SuperFOIL MultiFOIL Tape ensures 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.

Window & Roof Lights

Begin by measuring the depth of the window reveal, noting it down to refer to later. Roll the insulation over the window and mark the edges of these reveals on the surface of the insulation. You should then extend the sides of these "window markings" inwards by an amount equal to the depth of the reveal — this creates your "cut line".

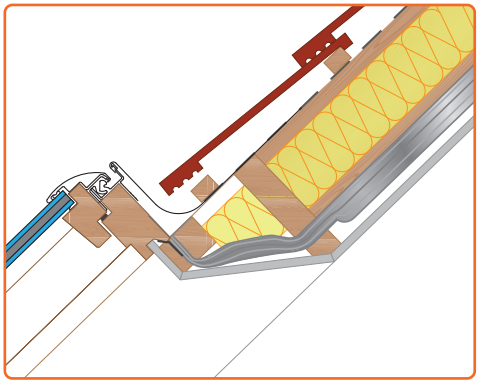


Next, using appropriate cutting tools (refer to page 9) carefully cut your insulation along this cut line. Afterwards, carefully seal the cut edges using SuperFOIL MultiFoil Tape before folding the new insulation flaps into the reveal, along the joists and up to the window frame.

You should then cut two additional strips of insulation to fit the top and bottom of the reveal. Measure the internal width and depth of the window reveal, this will provide the dimensions of these additional strips. Once cut to an appropriate size, these should be sealed on all edges using SuperFOIL Multifoil tape in accordance with the guidance provided on page 9.

Finally, you should install timber battens/ shims to fix the SuperFOIL in place at the edge of the window frame. The combined thickness of these battens/shims and the plasterboard should not exceed the depth of the window reveal.

These battens should be installed around the perimeter of the window reveal as well as around the perimeter of the frame.



SuperFOIL®

SIGN-OFF SHEET

Start Date

Completion Date

Project Name:

- [ ] Has the roof been inspected for suitability and any damage/condensation been assessed?
- [ ] Has the product been cut and trimmed to size?
- [ ] Has the product been sealed and taped at the ends before installing?
- [ ] Has the product been stapled at intervals no greater than 300mm?
- [ ] Have all joins and overlaps been taped?
- [ ] Has the correct sized counter batten been applied?
- [ ] Has the counter batten been installed at a maximum 600mm centres?
- [ ] Has the plasterboard been installed?
- [ ] 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 C02 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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