



Super**FOIL**
Insulation

Installation Guide

Flat Roof Over Joist

Preparing for the Installation Process

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.
- 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 during the roofing job.
- Fully read this guide (before beginning installation).

Recommended Batten and Staple Sizes

Product Size	Batten/Firrings Depth*	Batten Size / Joist*	Staple Size
15mm	25mm	25mm	14mm
25mm	38mm	38mm	14mm
50mm	50mm	50mm	14mm
75mm	50mm	50mm	25mm
100mm	63mm	63mm	30mm
125mm	75mm	75mm	35mm
150mm	90mm	90mm	40mm

** Firrings typically fall to 0mm, however, to provide adequate space for SuperFOIL to expand and still maintain the required low emissivity airspaces, you need to cut your firrings to fall to the minimum depth stated in the above chart. Alternatively, you can lay traditional firrings atop timber battens cut to the depth described in the table.*

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 provided as part of the system. It is important that you carefully 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.



Storage and Handling

SuperFOIL products should be stored in a clean, dry place. Indoor storage is recommended. There is no need to wear any personal protective clothing when handling SuperFOIL Insulation products. However care should be taken when cutting or fixing and the manufacturers safety guidelines for any tools used should be followed.

Copper/plastic Radiator 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.

Plastic pipes, like copper, may also need to be pulled through or extended. Additionally, adjustments to the heating system, such as relocating radiators or other components, may be required to accommodate the internal wall insulation. Any re-siting of radiators should be undertaken by a qualified professional.

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 ventilation outlets within the external wall should be maintained as required to ensure the ventilation is maintained into the property. It is important to note that where the external walls are improved in terms of thermal insulation, consideration is given to Part F of the Building Regulations – ventilation.

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 2.
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

Select an edge of the roof to begin working on. Begin your first run of insulation by stapling the start of the roll into the joists. Once secured, you can roll the SuperFOIL out across the flat roof; securing it as you go.

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 joists. 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 2 for details).

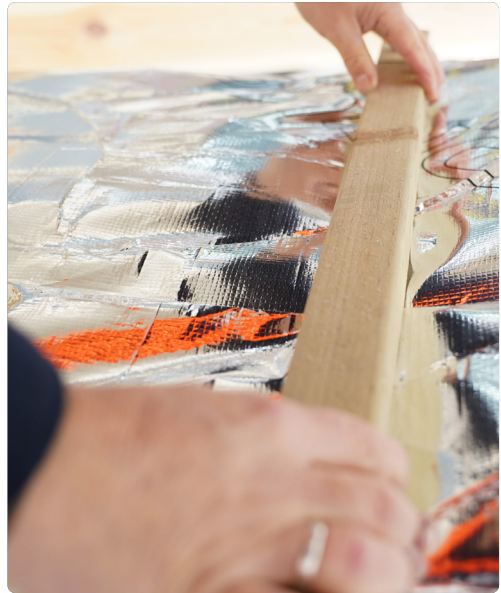
At the opposite edge of the roof, cut the insulation to align with the edge of the joist (refer to page 9 for instructions on cutting SuperFOIL). Once cut and sealed, staple the end of the insulation in place.

Each subsequent run of insulation should overlap the preceding run by at least 50mm to ensure a consistent joint. Once each run has been completed and secured, this joint should be sealed using SuperFOIL MultiFOIL Tape, before beginning the next run of insulation.



To complete the installation, install timber counter battens/firrings through the SuperFOIL and into the joists. These should be separated by spaces of no more than 600mm centres, and should be appropriately sized for the SuperFOIL product you are using (refer to table on page 2 for details).

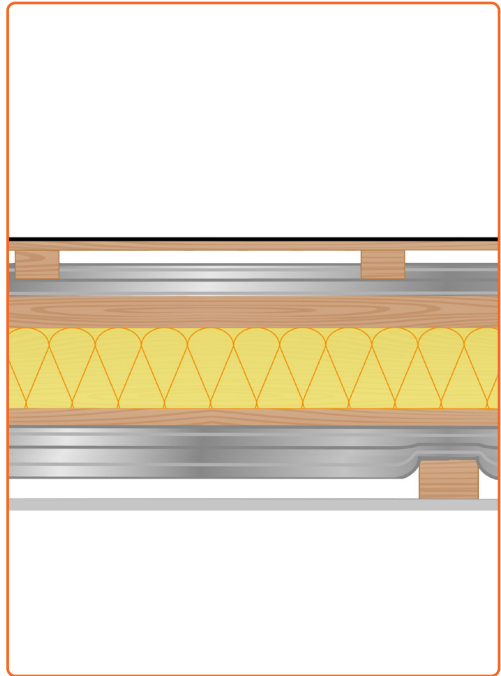
If using counter-battens & firrings, you should now install the firrings atop the battens. Finally, apply your chosen external finish atop the firrings, making sure to follow any installation instructions provided by the manufacturer.



Hybrid Roof Solution

If you are considering a Hybrid Roof Solution – where some of the insulation is installed above the joists and some below – it is important to know that there are several factors that need to be considered to reduce the risk of complications, such as interstitial condensation.

If you are planning to use SuperFOIL as part of a Hybrid Roof Solution, then we would strongly advise contacting our Technical Support experts for advice and guidance on the suitability for your project; as well as potential build-ups to help you achieve your ideal results.



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.



- **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 airtight 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

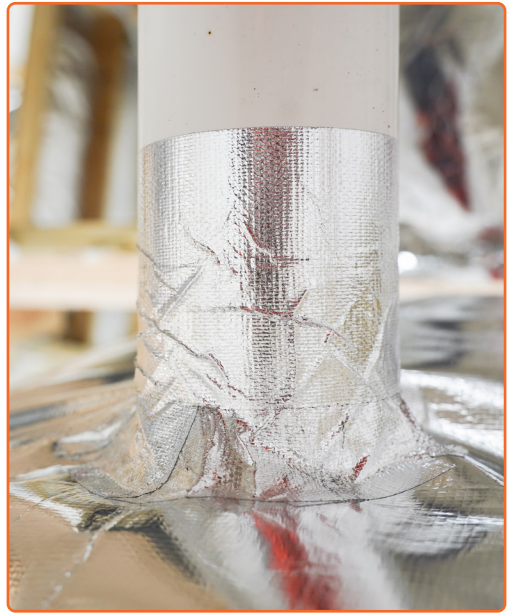
To maximise SuperFOIL's performance, ensure you are using the correct sized battens for the SuperFOIL product, this will ensure the correct airspace is achieved.

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.

Penetration Detail

At penetrations – such as vent ducting, pipework, etc – you should carefully trim the SuperFOIL to allow the penetration without creating gaps around it. The point of contact between the penetration and the insulation should then be sealed using SuperFOIL MultiFOIL tape to create an airtight barrier.

This can be achieved by using small sections of tape and working around the penetration. Double-sided tape and/or mastic sealant can also be used to enhance the seal.



Roof to wall junction

It is essential to ensure that the roof and wall insulation overlap one another in order to prevent potential thermal bridges by creating a continuous thermal envelope.

At the junction, overlap at least 50mm of your SuperFOIL product onto the wall. If you are utilising mastic sealant or double-sided tape, this can be used to fix the overlap in place and create an initial seal.

Seal the edge of the overlap using reflective tape, then finish the junction by installing counter-battens around the perimeter of the roof-wall junction. This will firmly secure the overlap in place.

Cavity Wall Junction

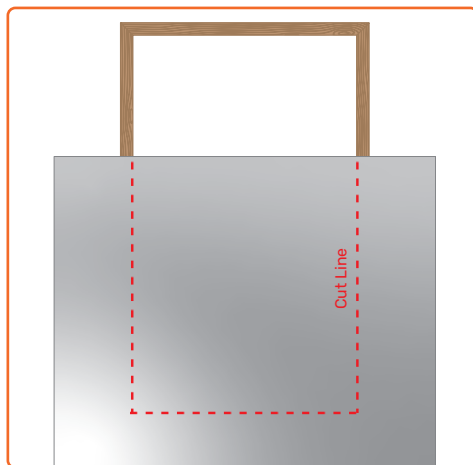
Where the flat roof covers an external cavity wall, special considerations must be taken to ensure that the installation does not interfere with the airflow of the wall cavity.

In these circumstances, the SuperFOIL should only extend to the inner leaf of the cavity wall insulation. It is absolutely essential that the SuperFOIL does not pass over the cavity itself. Additionally, the airspace above the SuperFOIL should be physically isolated from the wall cavity. This is essential to prevent future issues with interstitial condensation.

Window & Roof Lights

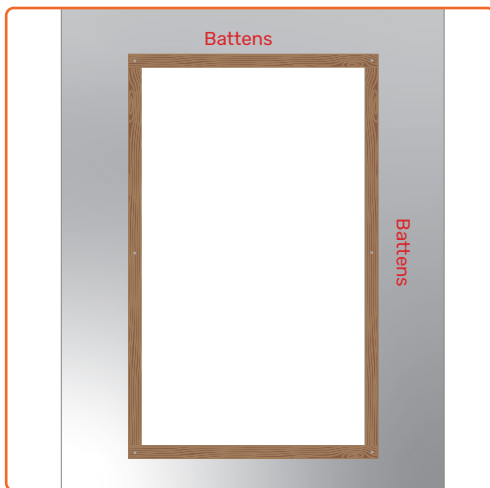
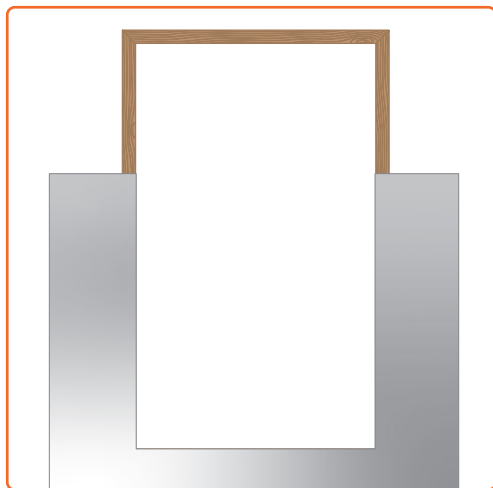
Roll the insulation over the window and mark the internal edges of the Window frame on the surface of the insulation. These are your cutting lines.

Cut along these lines (refer to page 9 for guidance on cutting SuperFOIL), this should allow the SuperFOIL to fit snugly around the window, with some SuperFOIL overlapping the window frame.



Next, you should staple the SuperFOIL to the Window Frame to fully secure it. If necessary, repeat the above steps on subsequent runs of insulation to ensure that the Window is fully surrounded by SuperFOIL.

Once the Window is fully surrounded with insulation, install timber battens around the perimeter of the window frame to fully fix the insulation in place. Finally, you should use SuperFOIL Multifoil Tape (and mastic sealant if needed) to create an airtight seal before completing the window by dressing according to the manufacturer's recommendations.



SIGN-OFF SHEET

Start Date

Completion Date

Project Name:

- ☐ Has the roof been inspected for suitability and any damage 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?
- ☐ Have correctly sized counter-battens been installed at a max of 600mm centres?
- ☐ If using additional insulation, have you ensured the remaining joist depth allows for a 50mm ventilated cavity and the airspace for the SuperFOIL product?
- ☐ Has a suitable finishing material 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 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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