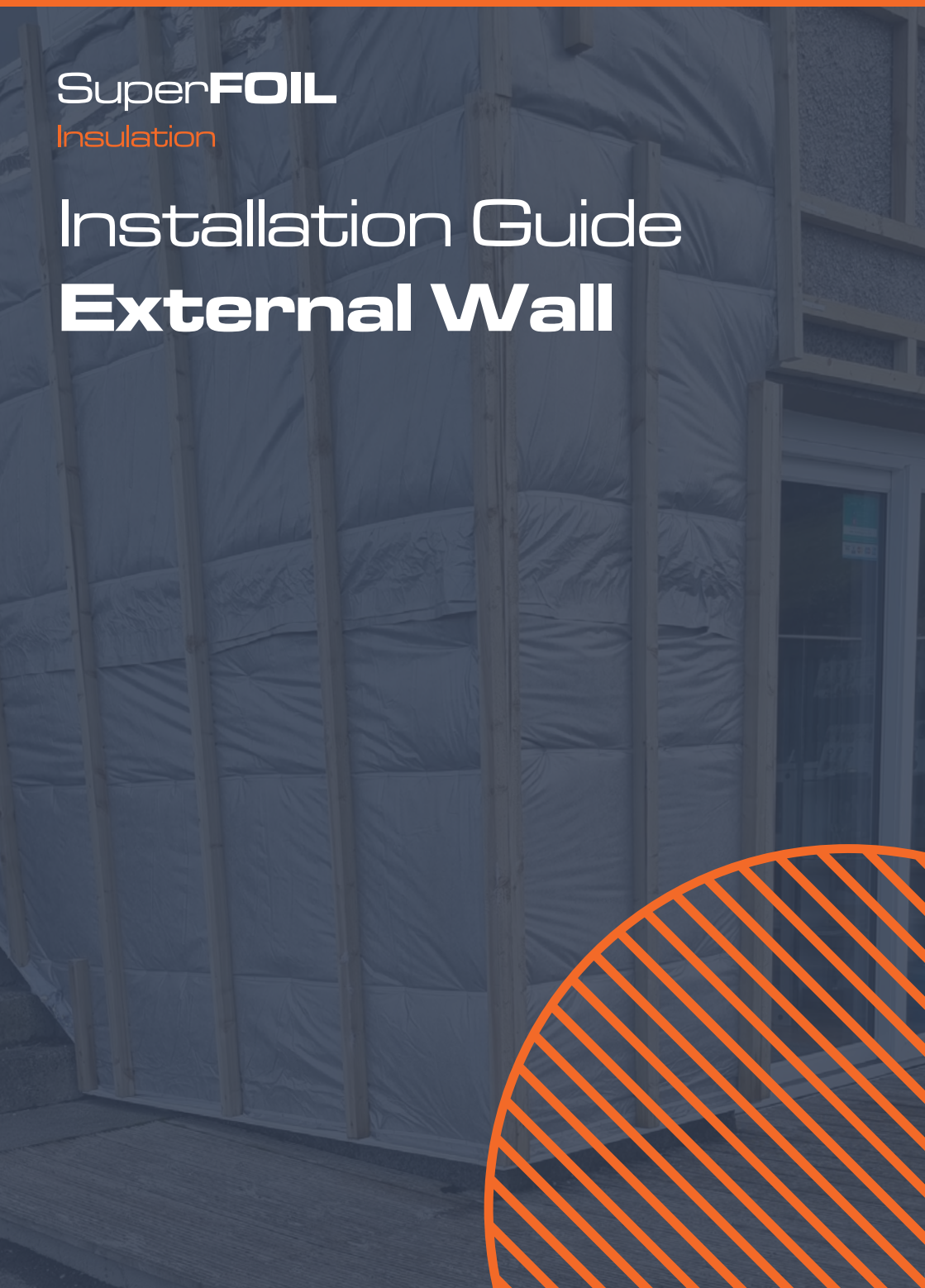
SuperFOIL
Insulation

Installation Guide
External Wall



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.
- Checks for dampness, condensation, or mould.
- 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.
- 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

01636 639900 technical@superfoil.co.uk www.superfoil.co.uk

Maintaining Existing Ventilation To A Property

All ventilation outlets within the external wall 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 external walls 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 radiator 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

- Ensure external walls, pointing, and any render are in good condition to prevent issues with weather exposure.
- 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, paper-backed Breathable tape.

Timber Battens

Treated timber battens sizes to suit the application.

External Finish

Your chosen external finish such as cladding, render board or similar.

Mechanical Fixings and Staples

High performance mechanical fixings to secure battens to the wall.

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

Galvanised or stainless steel staples.

Tools Required

As with all External wall 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**

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.

Installation Details

Begin by installing an initial layer of battens to the wall. Battens should first be applied to the top, bottom, and either side of the wall; creating a frame around its perimeter. This will ensure an unventilated airspace between the wall and the SuperFOIL.

Continue by fitting horizontal battens within this frame, ensuring that the spacing between these horizontal battens is no more than 600mm centres.

Before installing the insulation, you'll need to prepare the first run of SuperFOIL. To do this, you should first measure the length of the wall being insulated and cut an appropriate length of insulation to fit the wall. This is the first run of insulation.

Once cut, take the 100mm built-in flap and fold it over the open insulation layers and against the opposite side of the insulation, creating a waterproof edge. You should then peel the backing from the integrated double sided tape on the built-in flap and firmly press it against the SuperFOIL, sealing the waterproof edge in place.

The SuperFOIL should be installed horizontally against the battens with the breathable membrane surface facing away from the wall and the perforated foil side facing toward the wall.

Your first run of insulation should start at the bottom of the wall. Each following run should be applied above the previous one, with the built-in 100mm flap hanging down and overlapping the preceding run.

To fix the product, you'll need to staple one end of the run to the battens at the edge of the wall and work along the length of the run, securing the insulation as you go. When securing the product, you should remove excess slack by applying gentle tension before stapling.

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).

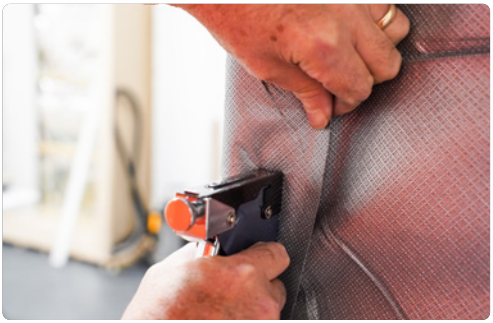
Once you have secured a run of SuperFOIL, you should seal it to the preceding run before beginning the next run.

To do this, peel the backing from the integrated double-sided tape on the built-in 100mm flap, apply gentle tension downwards (just enough to remove any slack) and firmly press it against the run of insulation below to create a well sealed joint.

At the end of the wall, if the insulation is not being continued around the corner, you need to seal the exposed edge of the SuperFOIL product. (If the insulation is being continued around the corner, please refer to the guidance on page 13.)

To do this, turn back the breathable membrane top layer, exposing the insulation layers. Carefully trim the insulation layers so that they align with the outer edge of the wall.

You should then take the top breather membrane layer and wrap it around the corner then staple it against the insulation on the adjacent wall.



If you finish a roll of insulation in the middle of the wall, turn back the breathable membrane top layer, and trim the revealed insulation layers back to the centre of the last covered batten. As you do, take care not to cut or otherwise damage the breathable membrane top layer.

You should then place the new roll of insulation butt jointed to the cut insulation and secure it to the batten.

After that, fold the breathable membrane from the finished roll back over the joint so that it overlaps onto the new roll. Then, seal the overlap using SuperFOIL Breathable Tape.

Once the SuperFOIL is secured in place, you can complete the installation by fixing counter-battens over the insulation; beginning by creating a “frame” of battens at the top and on either side of the wall. The bottom of the “frame” is left open to allow water to properly run off the SuperFOIL and to allow ventilation of the airspace.

With the frame in place, you can install vertical counter-battens within the frame. 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).

You can now apply your chosen finishing material to the counter battens, taking care to follow the guidance provided by the manufacturer of the product.

However, if you are using vertical cladding as your finishing material, then you may need to install an additional layer of horizontal battens against your counter battens to provide a suitable base for the cladding.

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 Sealing All Cuts and Overlaps

It is vital that you take care to seal any cuts, joints, openings and penetrations (such as windows, pipes, or ventilation ducts) in your SuperFOIL product using SuperFOIL Breathable Tape. Double-sided tape and/or mastic sealant can also be used between joints to enhance the seal.

Special attention should be given to penetrations in the SuperFOIL, as they must be properly sealed to ensure the performance of the insulation. When sealing penetrations, you should refer to the guidance given on page 12.

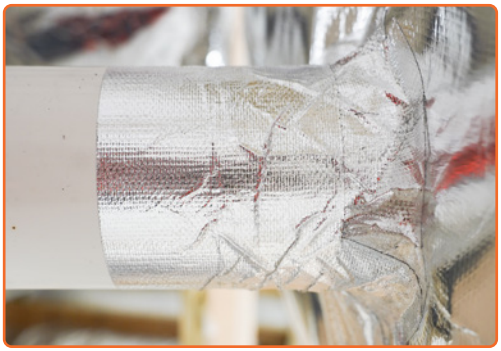
Importance of Airspaces

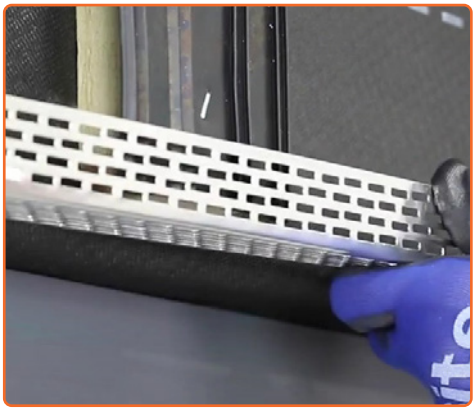
To maximise the performance of SuperFOIL products, it is essential that you use appropriately sized battens for the product that is being installed (refer to page 2 for details). This will ensure the correct airspace is achieved after the product has settled and fully expanded.

When included properly, these airspaces provide a significant increase in the effective R-Value of the product by combating all 3 forms of heat loss — reflecting up to 95% of radiant heat while also reducing heat loss via conduction and convection.

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. Then, the point of contact between the penetration and the insulation should be sealed using SuperFOIL Breathable Tape.



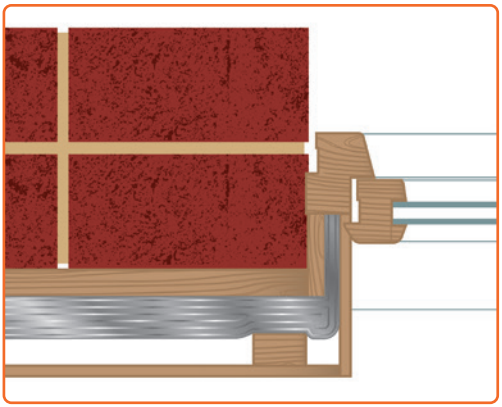


Perforated Closures / Insect Meshes

Perforated closure/insect mesh can be installed to close off the vertical counter battens at the top and bottom of the wall. This can be an effective way to keep pests from entering the airspace behind the cladding, while still allowing unrestricted water runoff and ventilation.

Window / Door Frame Detail

Roll the SuperFOIL over the window/door area and mark the position of the outer edge of the frame on the surface of the insulation. Following the guidance on page 10, carefully cut the SuperFOIL along these lines, so that it fits snugly around the frame.



Corner Details

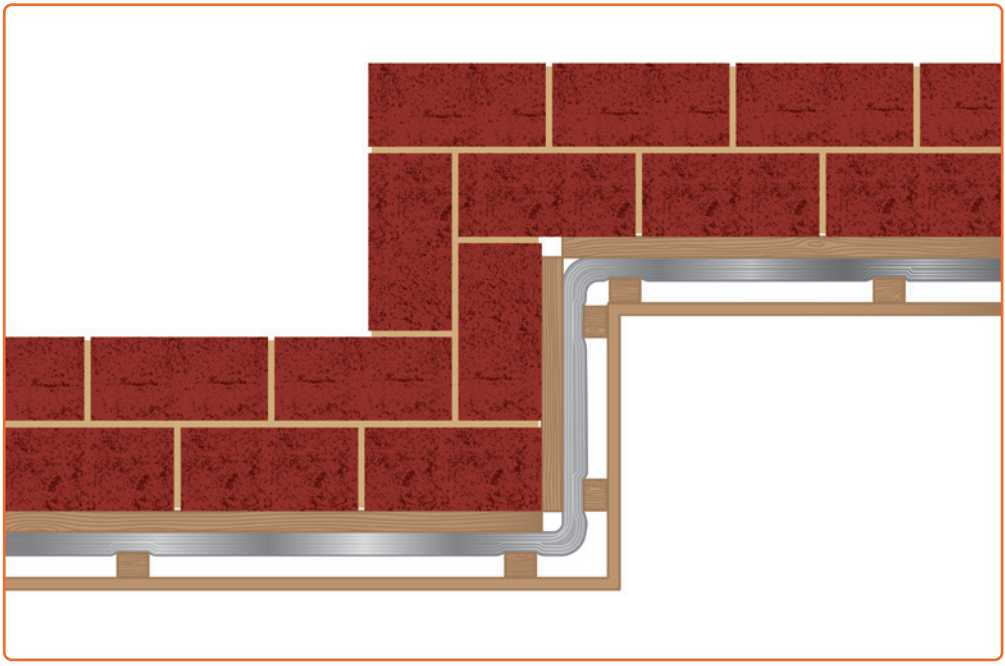
If you are continuing your insulation around a corner, then you must ensure that you batten each wall correctly. The correct batten application will depend on the angle of the corner…

If the corner is created by two walls meeting at an angle of greater than 90° then each wall should be "framed" with battens as described on page 6.

If the corner is created by two walls meeting at an angle of 90° or less, then battens should be installed immediately adjacent to one another in such a way that they are both an equal distance from the corner.

Once the battens are in place, the insulation can be installed according to the instructions provided. However, at these corners, it is vital that the insulation is securely stapled to the battens installed on both walls.

Counter battens should then be fixed as necessary to allow the finishing material to be applied according to the manufacturer's instructions.



SuperFOIL

SIGN-OFF SHEET

Start Date

Completion Date

Project Name:

- [ ] Has the wall been inspected for suitability and any damage/condensation been assessed?
- [ ] Has the product been cut and trimmed to size?
- [ ] Has the product been properly sealed and taped where necessary?
- [ ] Has the product been stapled at intervals no greater than 300mm?
- [ ] Have all joints and overlaps been taped or otherwise sealed?
- [ ] Has the correct sized counter batten been applied?
- [ ] Has the counter batten been installed at a maximum 600mm centres?
- [ ] 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:

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Insulation

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Address UK
Boulder Developments, Boulder Business Park, Pioneer Way, Lincoln LN6 0QR

Address EU
Boulder Developments, B.V Ground.
1st. 2nd and 3rd Floor.
Joop Geesinkweg 901 999,
Amsterdam, 1114 AB, Netherlands

01636 639900 technical@superfoil.co.uk www.superfoil.co.uk