



Super**FOIL**[®]
Insulation

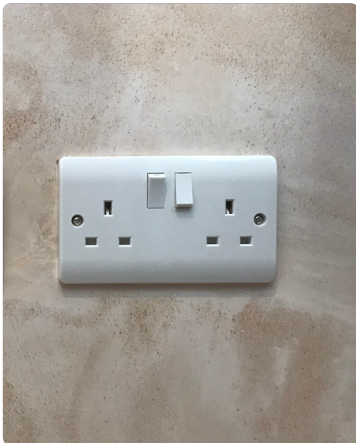
Internal Wall Insulation System **Survey / Installation Guide**



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.
- 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 during the roofing job.
- 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 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.

Central Heating

The position of radiators and other components used in the plumbing of heating systems should be considered and may need to be moved to accommodate the internal wall insulation. Where reposition of radiators is required this work should be undertaken by a suitably qualified person. See extended detail below on heating systems and plumbing.



Making Provisions For 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 carefully seal this protrusion fully so it remains properly airtight. Please see sections below for further information on specific situations. Any electrical or plumbing work should be carried out by a suitably competent person.

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 / 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 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.

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 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.



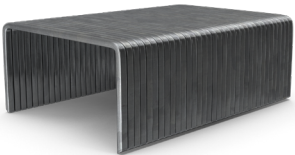
Plasterboard

12.5mm standard plasterboard



Mechanical Fixings and Staples

High performance mechanical fixings to secure battens.
Appropriately sized staples as per the chart on page 8.
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 Internal 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. In our experience, these tools form the baseline essentials that will help you install SuperFOIL to the highest standard.

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**

Care must be taken if these rolls are laid out over open holes in the floor, given the flexible nature of SuperFOIL. In these cases, we suggest you place warning signs to indicate that the sheets **MUST NOT** be walked on, as they will not support any weight themselves that the surface beneath would not be able to safely support.

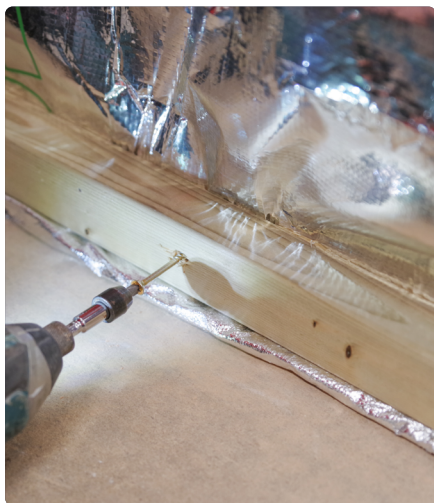
Initial Batten Layer

First, an initial layer of battens should be applied, at no more than 600mm centres. These must be secured to the wall using mechanical fixings that are suitable to support the weight of the structure.

It is essential these are level and sound in terms of being fixed to the wall. Where there are any irregularities you may need to use shims or similar methods to ensure the overall surface is flat and even this will help to achieve a good end result.



When installing vertical battens at 600mm centres, ensure that window and door openings are framed with additional battens to create a secure framework. This framework will provide proper fixing points around the openings. Additionally, install horizontal sealing battens at ceiling height and along the floor plate for added stability and sealing.



Where there is a change of wall direction less than 45° then we recommend you install two battens at the point where the angle meets and the SuperFOIL should be installed in a soft curve across the two walls.

Where two walls meet at an angle of 45° or more, each wall should be treated as an individual installation.



Installing The SuperFOIL

Once you are happy the batten for the walls to be fitted are sound, you may apply the SuperFOIL layer. This can be fitted in one continuous stretch over the course of the walls to be covered. We recommend installing the top layer first from side to side on a horizontal layer. Staple the SuperFOIL using 14mm staples at no more than 300mm spacings removing slack as you go.

When finishing at a wall, ceiling, floor and any window and door openings, leave 50mm overlap to create a seal under the perimeter battens.

Installing The Next Layer

When installing the next layer of the SuperFOIL be sure to overlap the previous layer by at least 50mm. Secure the SuperFOIL to the battens with 14mm staples at no more than 300mm intervals. Again when finishing at a wall, ceiling, floor and any window and door openings, please leave 50mm overlap to create a seal under the perimeter battens.

You should now address any required service protrusions. If needed, butyl or mastic tape can be applied first to create a firm seal before moving onto the sealing processes.



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.





Sealing The SuperFOIL Layer

Now the SuperFOIL is installed and all service protrusions have been made, it is vitally important that the entire installation is properly sealed with SuperFOIL MultiFOIL tape.

Any joints between layers of SuperFOIL must be overlapped and sealed using SuperFOIL MultiFOIL tape. Adhere the tape using firm pressure along the joints trying to avoid air pockets between the tape and the SuperFOIL. Finally, all holes where services, pipes (excluding copper pipes) and cables have come through must be carefully sealed using the SuperFOIL MultiFOIL tape to form an airtight finish.

Secondary Counter Batten Layer

Once the SuperFOIL product has been affixed securely to the first batten frame and completely taped, the secondary batten layer can be applied. This second batten layer mechanically fixes the product and provides the needed space to ensure the consistency of the required 20mm air gap.

The secondary counter battens should be fixed at no more than 600mm centres or to suit the internal finish. The batten should be secured using suitable mechanical fixings through the SuperFOIL into the first layer of battens installed earlier.



Fitting The Plasterboards

Plasterboard, or another finishing material, may now be fitted to the outer batten according to the directions of the manufacturer.

Boards may need to be cut to size and holes may also need to be made to bring pipes/cables etc through.

The holes in the plasterboard only need preparing for a skim finish.



It is important at this stage to make notes on where battens are located as a guide of where best to hang things like pictures and shelving.

Taping and Skimming

Once plasterboards have been fitted, these can be taped and skimmed ready for decoration.

Now, any fittings can be installed such as:

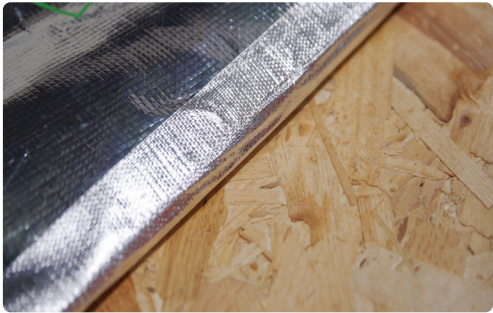
- **Sockets**
- **Light Switches**
- **Skirting Boards**



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.

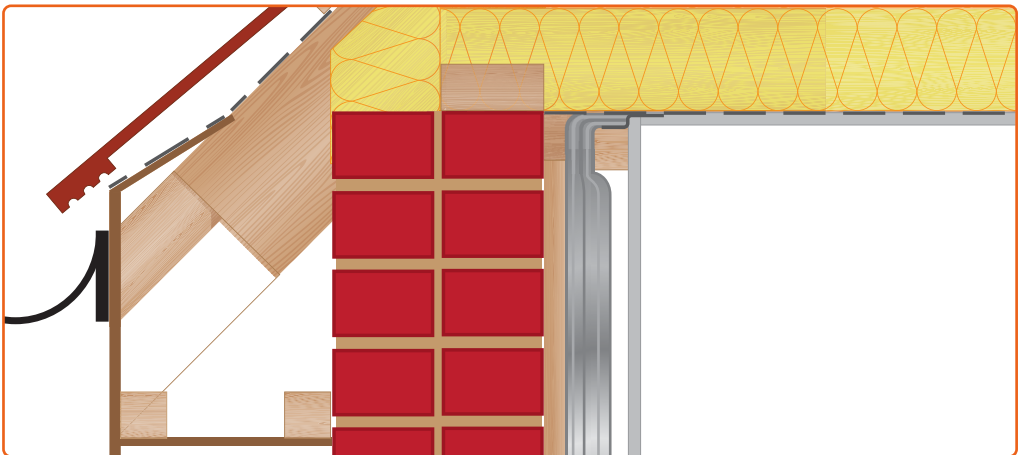
Ceiling Junction Detail

The joint between the ceiling layer and SuperFOIL on a vertical wall is a critical area of potential thermal bridging or cold spots which must be treated properly to ensure these are avoided.

As can be seen on the drawing shown here, the SuperFOIL will be installed between two battens, sited at the very top of the room at the ceiling plate. There must be no gaps between the battens and the ceiling.

The SuperFOIL is compressed between the battens and an overlap is created which folds behind and under the batten coming into the room being insulated to approx. 40mm - 50mm.

The key point when joining SuperFOIL to the ceiling plate is that the loft insulation and SuperFOIL overlap one another in such a way to create a continuous thermal envelope.

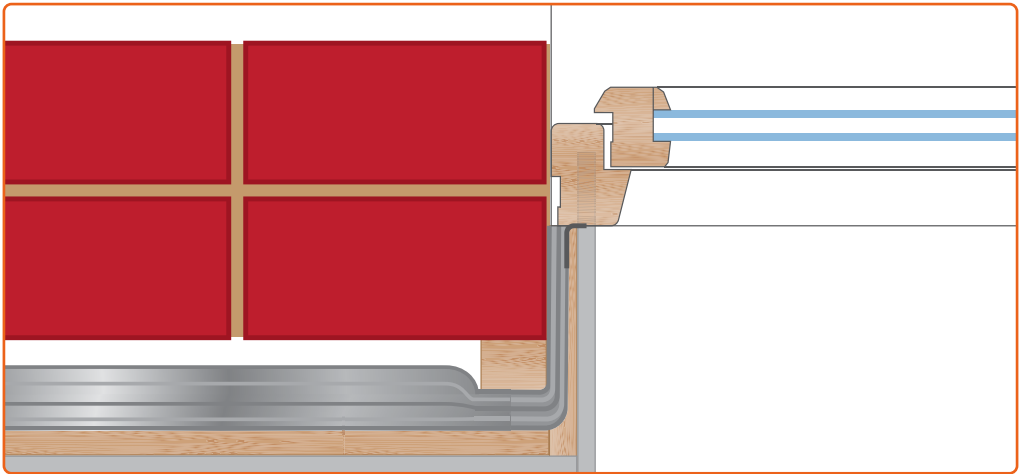


Window/Door Reveals Detail

The treatment for a window/door reveal will require consideration of the depth of the reveal and the thickness of the frame that is exposed in the reveal. Where the exposed frame thickness is 50mm or less it will not be possible to continue with an air space either side of the SuperFOIL as this will impinge on the window itself.

In these instances, you should batten the foil as shown in the diagram at the window reveal/wall junction and cut sufficient length to allow the SuperFOIL to be folded into the reveal and to meet the window frame. Fix the SuperFOIL at the window/door frame edge using an appropriate sized shim/batten to accommodate the depth of the frame taking into account the thickness of the plasterboard to be used.

The SuperFOIL at this point will compress to approximately 3mm; the total depth at the window/door frame will therefore be 25mm + 3mm = 28mm. By adding a shim(s) sized appropriately to the batten fixing the SuperFOIL at the corner of the reveal you will create a surface onto which a 12.5mm plasterboard can be fixed. This will give a total depth of 41mm from the plaster/brick face of the reveal wall to the surface of the plasterboard. Where the window/door frame depth exceeds 50mm it may be possible to use a deeper batten and shims to achieve a higher thermal value.

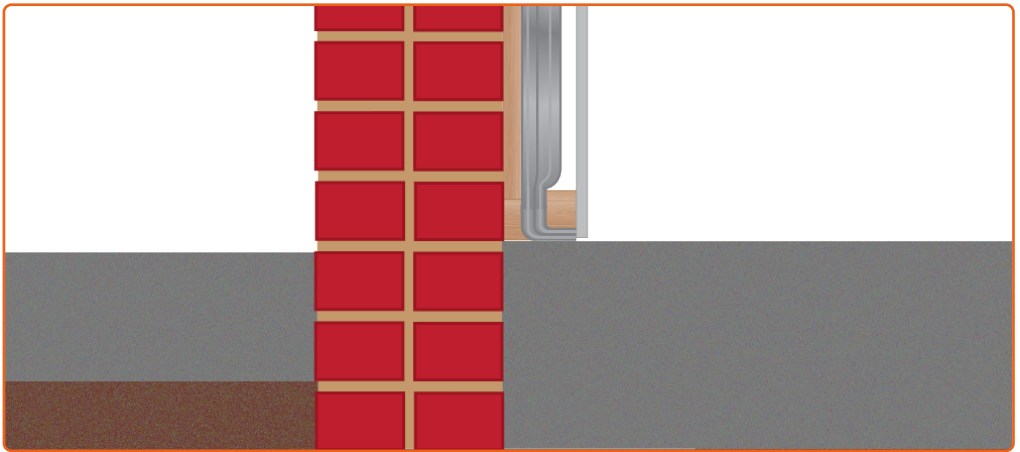


Floor Junction Detail

The joint between the wall and floor is an area of particularly high risk for thermal bridging issues, making proper installation technique essential.

When working with a solid floor the construction of the stud framework should feature a continuous batten fitted on the slab/floor surface.

This batten provides the base fixing point for the SuperFOIL. If the roll is required to be trimmed to fit a specific width it is important that the cut edge is taped to provide a sealed edge (see page 12).



Special Considerations For Bathrooms And Kitchens

In kitchens and bathrooms SuperFOIL products should only be installed in conjunction with construction materials suitable for use in humid and damp environments.

Ventilation

When insulating external walls, take note of any ventilation outlets in the wall. To prevent undermining the air quality of the property, care should be taken to ensure that these outlets are preserved. This will likely require you to carefully cut, trim, and seal the insulation to fit around these outlets.

Interstitial Condensation

Walls incorporating the SuperFOIL IWI solution limit the risk of interstitial condensation when designed and constructed in accordance with BS 5250:2011. SuperFOIL performs as a VCL and has a water vapour resistance of 1200 MNs/g (BS EN 1931:2000). This has been further confirmed by hygrothermal testing undertaken to BS EN 15026 (2007).

The high water-vapour resistance provides significant resistance to the passage of water vapour provided all overlaps and joints are well sealed. When the products are installed in conjunction with other insulation materials, the water vapour resistance and installation instructions of the additional insulation should be considered.

When using SuperFOIL Insulation products, due consideration must be taken of the overall installation to minimise perforations by services (e.g. light switches and power outlets), and the joints at ceiling and skirting level must be fixed and well sealed.

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.



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 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 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


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

