

SISALATION® FOAM CELL AND SISALATION® BUBBLE CELL

Application

This Installation Guide provides installation recommendations for Sisalation® Foam Cell and Sisalation® Bubble Cell building membranes in residential roofing and walling, and commercial metal deck roofs.

Important Notes

Sisalation® Foam Cell and Sisalation® Bubble Cell building membranes are supplied in rolls to allow easy installation along roofs and walls.

- Sisalation® Foam Cell and Sisalation® Bubble Cell are vapour barriers and may not be suitable for some applications in cold climates. Please consult your project requirements before install.
- All pliable building membranes shall be installed in accordance with AS 4200.2.
- Refer to latest ICANZ installation handbook Part 2: Professional Installation Guide, for further information and tips.
- Ensure that all safety assessments are carried out relevant to the project and all site safety requirements are strictly adhered to.
- Electric cables and equipment partially or completely covered with bulk thermal insulation may overheat and fail. Refer to AS 3999.
- Foil products conduct electricity. It is important that all safety requirements are adhered to when installing this product. As a minimum, have your electrician disconnect the electrical supply prior to commencing the installation to ensure that the foil is not 'LIVE'. Reconnect the electrical supply after installation and then test to confirm that the foil is not conducting electricity.
- Under no circumstances should Sisalation® foil membranes be applied horizontally in residential ceiling spaces and under-floor applications. Refer to the Australian/New Zealand Wiring Rules AS/NZS 3000 for detailed information.
- Prior to, during and after installation, the insulation must be kept dry.
- Where cutting is required, use a sharp knife and straight edge.
- Any damage or tears shall be repaired using Vapastop® 883 Reinforced Foil Tape to restore integrity of the membrane.

Materials required

- Refer to the project specification for the correct membrane specification.
- Measure the square metre of area to be covered.
- Coverage for each membrane roll is provided on the relevant technical data sheet.
- Simply divide the area to be insulated by the coverage per roll to determine the number of rolls to order.
- As a general rule allow for 5% wastage for simple areas and greater allowances for more complex areas.

Accessories

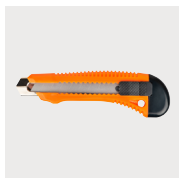
- Fasteners suitable to the application and framing system shall be used to fix the membranes in place.

Tools



Tape measure

To measure lengths required.



Sharp knife

For cutting insulation to size.



Straight edge

For cutting.



Cutting board

Or hard, durable surface.



Clothing & PPE

Appropriate wear for site (refer sections below).



Ladder

Or scaffolding as needed.

PPE

Personal Protective Equipment (PPE) must be compliant with the requirements of the specific worksite. Check with site foreman or site representative to ensure that required PPE obligations are met. As a recommendation for handling and installing insulation materials, the following PPE is recommended:



Eye protection

Suitable eye protection to AS 1336 reduces the risk of eye contact with dust.



Gloves

Gloves are recommended, especially when cutting insulation.



Work clothes

Loose fitting clothes, including long sleeved shirts, long pants and cap or hard hat.



Dust mask

A dust mask is recommended when working in dusty areas.



Safety shoes

Safety boots/shoes must be worn to protect feet.



Separate wash

Wash work clothes separately and rinse the washing machine after use.

Safety



Assess

Assess the building structure and site for any safety issues prior to commencing work.



Check

Before entering a ceiling space, make note of the location of equipment in the ceiling such as lighting luminaires, exhaust fans and fire sprinklers.



Electrical wires

Ensure the work area is safe from hazards including electrical cabling. Do not touch any live electrical cables.



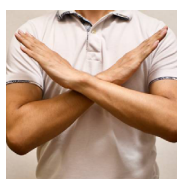
Isolate power

If accredited, isolate power at the circuit board where necessary and apply caution tags to circuit breakers.



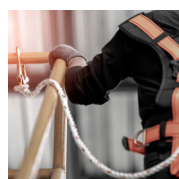
Electrician

If not accredited, ask appropriate site representative to isolate power at the circuit board where necessary and apply caution tags to circuit breakers.



Limitation of use

Under no circumstances should Sisalation® Foam Cell or Sisalation® Bubble Cell be applied horizontally in residential ceiling spaces and under-floor applications. Refer to the Australian/ New Zealand Wiring Rules AS/NZS 3000 for information.

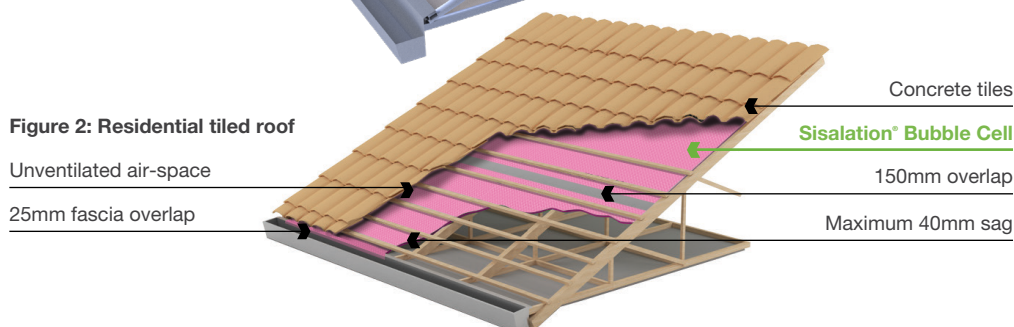
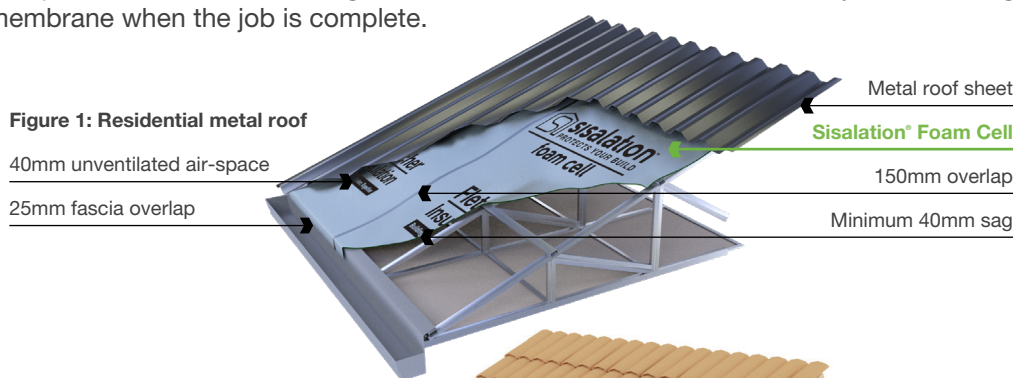


Height

Working at height can be dangerous, exercise caution when climbing ladders or accessing elevated platforms.

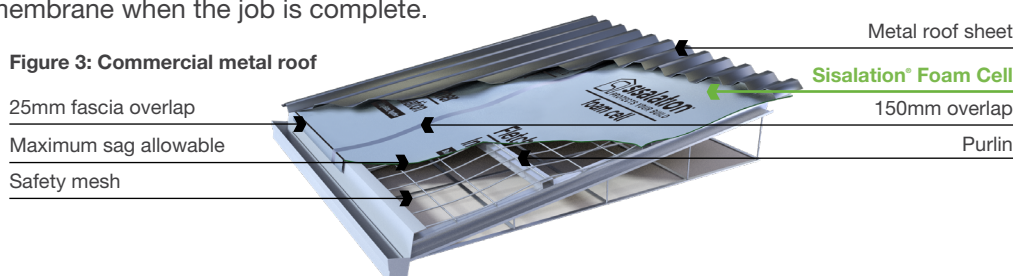
Residential metal and tiled roofing

- In residential sheet metal roofs, the Sisalation® Foam Cell (**Figure 1**) and Sisalation® Bubble Cell pliable building membrane shall be installed as a continuous membrane, anti-glare side facing out and laid loosely over rafters/battens on 450mm centres with a minimum sag of 40mm.
- For larger rafter spacings (in metal roofs), the drape shall be increased to 60–80mm.
- Joins must be overlapped to facilitate drainage by using the 150mm flap.
- Sisalation® Foam Cell and Sisalation® Bubble Cell pliable building membrane shall be installed to allow for drainage of liquid water into the gutter.
- When used under roof tiles, Sisalation® Foam Cell and Sisalation® Bubble Cell (**Figure 2**) must be installed under the battens with a sag not exceeding 40mm, in accordance with AS 4200.2.
- Where Sisalation® Foam Cell and Sisalation® Bubble Cell are acting as a water control, membrane shall be installed at a slope of no less than 2° to facilitate drainage.
- For low pitch roofs (3° to 10° pitch), Sisalation® Foam Cell and Sisalation® Bubble Cell must be installed horizontally (parallel to the fascia). The membrane shall be supported and overlaps shall be sealed to prevent water ingress.
- Where the Sisalation® Foam Cell and Sisalation® Bubble Cell pliable building membrane is intended to act as a vapour barrier and/or air barrier, tape and seal all overlapped joins, penetrations and discontinuities with 72mm Vapastop® 883 Reinforced Foil Tape to prevent air movement.
- At the fascia edge the membrane should overlap 25mm and not impede drainage to the gutter
- Restore power, remove caution tags and test membrane to ensure electricity is NOT being conducted by the membrane when the job is complete.



Commercial metal deck roofing

- The Sisalation® Foam Cell (**Figure 3**) and Sisalation® Bubble Cell 100 pliable building membrane shall be installed as a continuous membrane, anti-glare side facing out and laid with a maximum sag allowable by the safety mesh between purlins.
- Joins must be overlapped to facilitate drainage by using the 150mm flap.
- Sisalation® Foam Cell and Sisalation® Bubble Cell 100 pliable building membrane shall be installed to allow for drainage of liquid water into the gutter.
- The roof sheet may be fixed by screwing through the Sisalation® Foam Cell and Sisalation® Bubble Cell 100 pliable building membrane into the purlin.
- Restore power, remove caution tags and test membrane to ensure electricity is NOT being conducted by the membrane when the job is complete.



Framed walls

- In framed walls and gables, the Sisalation® Foam Cell (**Figure 4**) and Sisalation® Bubble Cell (**Figure 5**) pliable building membrane shall be installed horizontally as a continuous membrane by fixing to all framing members with the anti-glare side facing out.
- Joins must be overlapped to facilitate drainage by using the 150mm flap. Joins may also be taped using 72mm Vapastop® 883 Reinforced Foil Tape to aid air tightness and prevent water ingress.
- The Sisalation® Foam Cell and Sisalation® Bubble Cell pliable building membrane shall extend from the top plate to the bottom plate on concrete slabs or bearers in timber constructions.
- Fixings are to be no more than 450mm apart and should be installed using galvanised clouts or staples when fastening to timber construction and TEK screws when fastening to steel constructions. It is recommended that flat punched multi-point fasteners or cap screws are used for fixing in high wind areas.
- All overlaps must either utilise the 150mm flap as an overlap or be taped using 72mm Vapastop® 883 Reinforced Foil Tape to prevent water ingress. If the flap cannot be used, it is recommended Sisalation® Foam Cell and Sisalation® Bubble Cell is overlapped 50mm prior to taping.
- Any damage made to the Sisalation® Foam Cell and Sisalation® Bubble Cell pliable building membrane during installation, including holes and tears, must be repaired.
- Where the Sisalation® Foam Cell and Sisalation® Bubble Cell pliable building membrane is intended to act as a vapour barrier and/or air barrier, tape and seal all overlapped joins, penetrations and discontinuities with 72mm Vapastop® 883 Reinforced Foil Tape to prevent air movement.
- Restore power, remove caution tags and test membrane to ensure electricity is NOT being conducted by the membrane when the job is complete.

Figure 4: Steel framed wall with Sisalation® Foam Cell

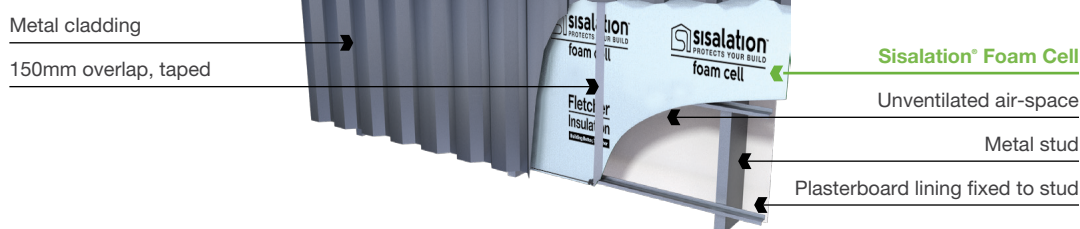
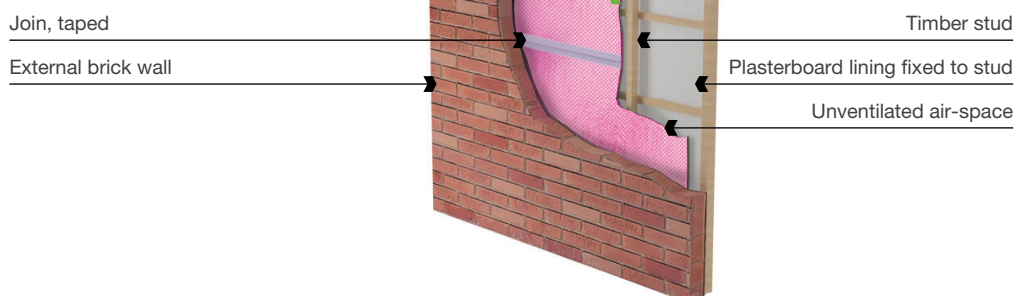


Figure 5: Brick veneer wall with Sisalation® Bubble Cell



Double brick and masonry cavity walls

- Install the Sisalation® Foam Cell or Sisalation® Bubble Cell pliable building membrane before the second leaf of a cavity brick wall has been constructed.
- Sisalation® Foam Cell and Sisalation® Bubble Cell pliable building membrane may be installed directly onto the internal leaf, or adjacent to the internal surface of the external leaf of a double brick wall. Refer to **Figure 6** and **Figure 7** below.
- An air gap/drainage plane (of width defined in AS 3700 or AS 4773) must be maintained between the Sisalation® Foam Cell/Sisalation® Bubble Cell pliable building membrane and the external leaf of bricks to maintain the moisture resistance of the wall construction.
- After the first leaf of the double brick or masonry cavity wall is laid, place suitable foam spacers onto the brick ties via the vertical slit provided. Install one cavity spacer per square metre to ensure the required air-space is achieved. This will ensure the air gap is maintained.
- Install Sisalation® Foam Cell/Sisalation® Bubble Cell horizontally. Cut slits through the pliable building membrane at all brick tie positions and place Sisalation® Foam Cell/Sisalation® Bubble Cell into position over the brick ties. Push the membrane and the cavity spacer into position against the brickwork.
- Place additional foam spacers over the brick ties and press against the Sisalation® Foam Cell/Sisalation® Bubble Cell to establish the air gap on each side of the membrane.
- The overlap shall face downwards to facilitate a 150mm overlap. Ensure there are no obstructions to weepholes.
- Tape and seal penetrations as required.
- Restore power, remove caution tags and test membrane to ensure electricity is NOT being conducted by the membrane when the job is complete.

Figure 6: Double brick cavity wall with Sisalation® Foam Cell

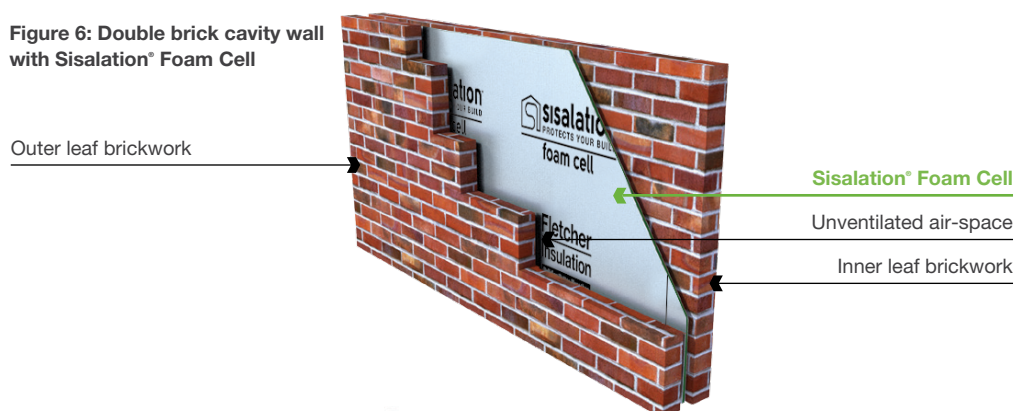
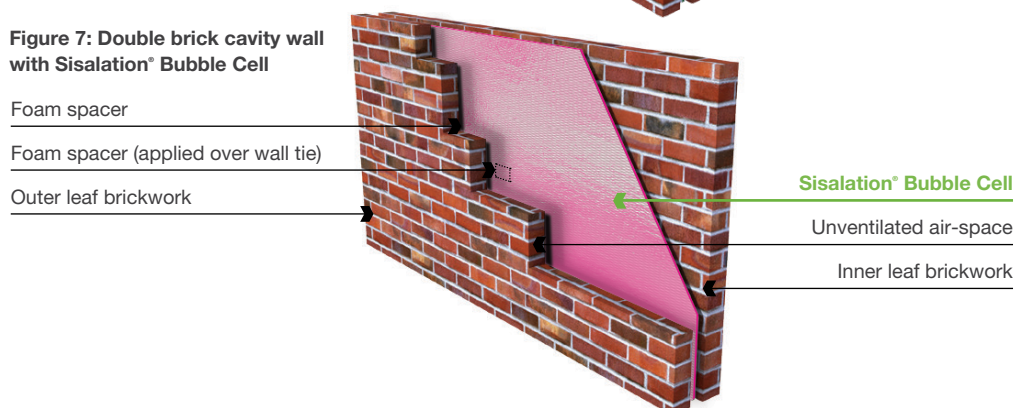


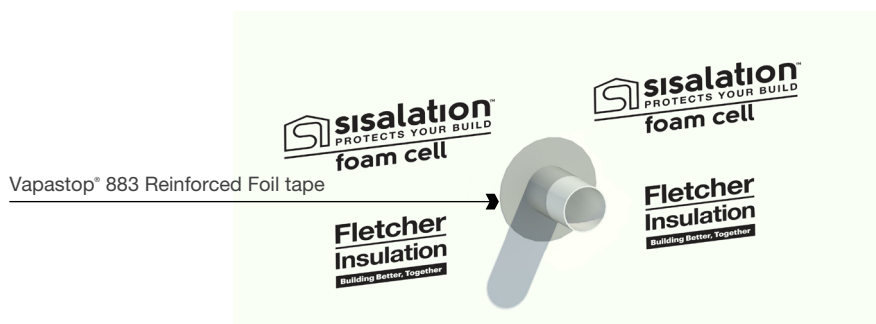
Figure 7: Double brick cavity wall with Sisalation® Bubble Cell



Penetrations

- Offcuts of the membrane may be used to flash below, beside and above a penetration (in this sequence), applying sheets from below the penetration upwards while maintaining suitable overlaps to drain moisture out and away from the building.
- Adhesive tape, such as Vapastop® 883 Reinforced Foil Tape, shall be used to seal the penetration, maintaining an air and water tight seal around the service.
- Tape and seal all overlapped joints, penetrations and discontinuities with 72mm Vapastop® 883 Reinforced Foil Tape to prevent air movement. Refer to **Figure 8** below.
- When the Sisalation® Foam Cell and Sisalation® Bubble Cell pliable building membrane is installed as sarking, all penetrations shall be sealed or turned up to facilitate drainage around penetrations. Ensure window and door openings are cut neatly and carefully and are properly fitted at flashing points.
- The Sisalation® Foam Cell and Sisalation® Bubble Cell pliable building membrane shall be cut back from any hot flue to reduce the fire hazard risk. This can be achieved by allowing for clear space of at least 50mm with non-combustible in-fill of gaps.

Figure 8: Vapastop® 883 Reinforced foil tape wrapped and adhered around external penetration.



Note: If your application/installation is outside these guidelines, please contact Fletcher Insulation prior to commencing the install to obtain written approval for your specific application.

© Fletcher Insulation Pty Limited 2022. Fletcher Insulation reserves the right to change product specifications without prior notification. Information in this publication and otherwise supplied to users as to the subject product is based on our general experience and is given in good faith, but because of the many particular factors which are outside our knowledge and control and affect the use of products, no warranty is given or is to be implied with respect to either such information or the product itself, in particular the suitability of the product for any particular purpose. The purchaser should independently determine the suitability of the product for the intended application. The colour PINK, Pink® and Pink® Batts are registered trademarks of Owens Corning used under licence by Fletcher Insulation. FBS-1 Glasswool Bio-Soluble Insulation® is a registered trademark of ICANZ. Unless otherwise stated all ™ and ® are trademarks and registered trademarks of Fletcher Insulation Pty Limited ABN 72 001 175 355. IG17_Revision_1_issue date 01112022.

For more information call 1300 654 444
email info@insulation.com.au or web www.insulation.com.au

Fletcher
Insulation
Building Better, Together