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Installation Guide

SISALATION® PLIABLE BUILDING MEMBRANES – VAPOUR PERMEABLE

Introduction

This Installation Guide provides installation recommendations for Sisalation® Pliable Building Membranes – Vapour Permeable in residential walling and metal roofing. The products are:
Sisalation® Vapawrap® Residential Wall Wrap
Sisalation® Vapawrap® Vapour Permeable Metal Roof

Important Notes

Sisalation® Vapawrap® Residential Wall Wrap and Sisalation® Vapawrap® Vapour Permeable Metal Roof permeable building membranes are supplied in rolls to allow easy installation along roofs and walls.

- All pliable building membranes shall be installed in accordance with AS 4200.2 with the designed function/s.
- Only Sisalation® Vapawrap® Vapour Permeable Metal Roof can be used/installed as roofing membrane under metal roofing sheets.
- Sisalation® Vapawrap® Residential Wall Wrap is designed for residential walls and gable applications.
- The printed face of Sisalation® Vapawrap® vapour permeable membranes is always installed facing outward.
- Damage or tears to the membrane must be repaired or replaced where necessary.
- Refer to the 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.
- Ensure laps in membranes to maintain weather tightness.
- Avoid gaps between membrane sheets other than where required around electrical fittings or as specified.
- When installed as an air barrier, the vapour permeable building membrane shall be continuously taped/sealed at overlaps, end laps, discontinuities and penetrations using 3M Seaming Tape.
- Ensure to repair any damage or tears to the material with 3M Seaming Tape to maintain the integrity of the membrane.

Materials required

- Prior to installation, calculate the amount of each membrane type and fixings required for the installation.
- Obtain/measure the square metre of area to be covered.
- Refer to the project specification for the correct membrane specification.
- Coverage for each membrane roll is provided on the relevant Technical Data Sheet.
- 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.
- 48mm 3M Seaming Tape.

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

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; the following Personal Protective Equipment is recommended:

Specific PPE

Site specific PPE must always be worn. Where installation is above head height safety glasses must be worn.

Eye protection

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

Gloves

Gloves are recommended, especially when cutting insulation

Work clothes

Loose fitting clothes, including long pants, long sleeved shirts, cap and gloves should be worn. Long sleeves recommended.

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 your 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.

Height

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

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

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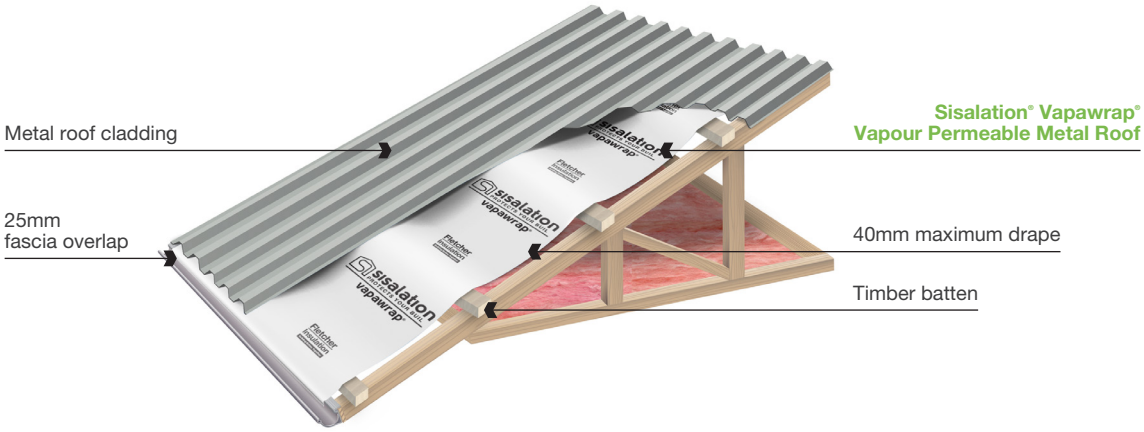
Residential metal deck roofing

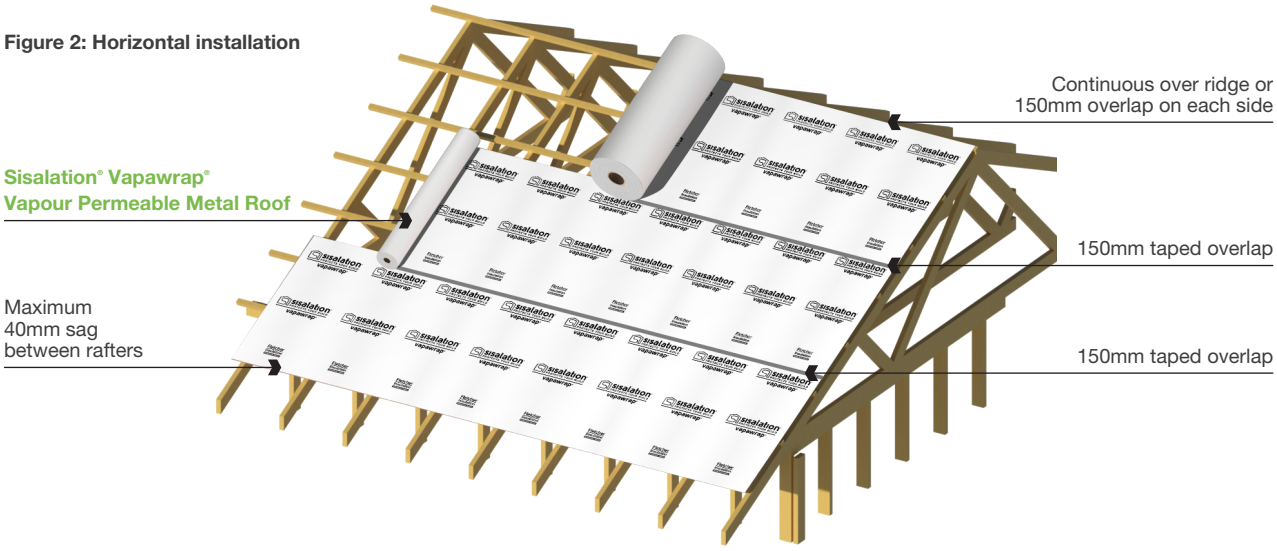
- Sisalation® Vapawrap® Vapour Permeable Metal Roof can be installed either above or below the roofing battens under metal roof sheeting (refer to **Figure 1**).
- For residential roofing, Sisalation® Vapawrap® Vapour Permeable Metal Roof shall form a continuous membrane and is laid loosely over battens or under battens, above trusses/rafters on max 900mm centres with a maximum drape of 40mm.
- When positioned under the battens, Sisalation® Vapawrap® Vapour Permeable Metal Roof shall be installed horizontally (parallel to the fascia) across the trusses or rafters, fasteners may be needed to maintain uniform overlaps prior to fixing the roof battens.
- Sisalation® Vapawrap® Vapour Permeable Metal Roof shall be installed to allow drainage of liquid water into the gutter. Ponding should be avoided. When installed horizontally, the top layer should overlap the bottom layer by at least 150mm.
- Sisalation® Vapawrap® Vapour Permeable Metal Roof is suitable for use at roof pitches above 3° and installed at a slope of no less than 2° to facilitate drainage.
- Sisalation® Vapawrap® Vapour Permeable Metal Roof shall be cut around obstacles such as skylights and vents etc, and all openings to be sealed with 3M Seaming Tape. Ensure the penetration diverts water away from the opening and sealed to prevent water ingress and maintain purpose of the membrane.

Figure 1: Pitched residential roof with Sisalation® Vapawrap® Vapour Permeable Metal Roof



- When used at pitches less than 10°, Sisalation® Vapawrap® Vapour Permeable Metal Roof must be installed horizontally (parallel to the fascia) (refer to **Figure 2**), the membrane to be supported or the overlaps to be sealed to give a clear drainage path.
- On low pitch roofs, draping between battens may cause ponding. It is best practice to tape and seal to prevent water ingress.
- At pitches greater than 10°, Sisalation® Vapawrap® Vapour Permeable Metal Roof may be installed vertically (from ridge to eave) or horizontally when positioned above the roof purlins/battens.
- Joins must be overlapped or tape sealed with 3M Seaming Tape where appropriate. Overlaps shall be 150mm minimum.
- All end joints of Sisalation® Vapawrap® Vapour Permeable Metal Roof shall be positioned over supporting members, continued over the ridge line with an overlap of not less than 150mm where applicable.
- At fascia/barges, Sisalation® Vapawrap® Vapour Permeable Metal Roof shall extend beyond the front edge of the fascia and protrude no more than 25mm into the gutter.
- Sisalation® Vapawrap® Vapour Permeable Metal Roof is suitable for use under suspended concrete slab if desired, fixed directly or through battens using TEK screws, furring channel clips or equivalent, to secure the product properly with maximum sag of 40mm between supports.
- When finished, restore power, remove caution tags and test membrane to ensure electricity is NOT being conducted by the membrane when the job is complete.
- Sisalation® Vapawrap® Vapour Permeable Metal Roof shall be cut around obstacles such as skylights and vents etc, and all openings to be sealed with 3M Seaming Tape. Ensure the penetration diverts water away from the opening and sealed to prevent water ingress and maintain purpose of the membrane.

Figure 2: Horizontal installation



Residential framed walls

- In residential framed walls and gables, Sisalation® Vapawrap® Residential Wall Wrap shall be installed horizontally as a continuous membrane (**Figure 3**) by fixing to all framing members.
- Sisalation® Vapawrap® Residential Wall Wrap must be installed with the printed spun bonded polymer facing outward.
- Starting at a corner location, line up the bottom of the Sisalation® Vapawrap® Residential Wall Wrap covering the base of the timber bottom plate.
- Initially fasten the wall wrap at one point then roll the Sisalation® Vapawrap® Residential Wall Wrap along the wall, ensuring it is level before fastening.
- Roll the wall wrap out to the far end of the subsequent window and affix using mechanical fasteners at a frequency of no more than 150mm centres on timber stud, 300mm centre with a broad headed washer on metal stud including the top plate.
- Horizontal joins shall be overlapped by 150mm minimum, and vertical joins shall be overlapped by 150mm–300mm.
- To achieve an air barrier, all joins, cuts and penetrations shall be taped using 3M Seaming Tape.
- Install the next run of wall wrap leaving a 150mm overlap on the layer of wall wrap below. Continue until the top of the wall frame is covered and the wall wrap is tape sealed to the top plate.
- At windows or openings, the membrane shall be cut and dressed in all sides to achieve its desired function and facilitate proper drainage to the building flashing. Refer to **Figure 4.**
- If the wall wrap is being installed onto a steel frame, use double sided tape and button head screws to fix the wall wrap to the steel studs.
- External cladding shall be installed without delay and any damage repaired before the cladding installed. For best practice, a minimum 25mm cavity is recommended between the external cladding and the Sisalation® Vapawrap® Residential Wall Wrap.
- Recommended fasteners are galvanised clouts or staples for timber framing and button head or TEK screws for steel framing. It is recommended that flat punched multi-point fasteners or cap screws are used for fixing in high wind areas.

Figure 3: Sisalation® Vapawrap® Residential Wall Wrap in residential framed wall

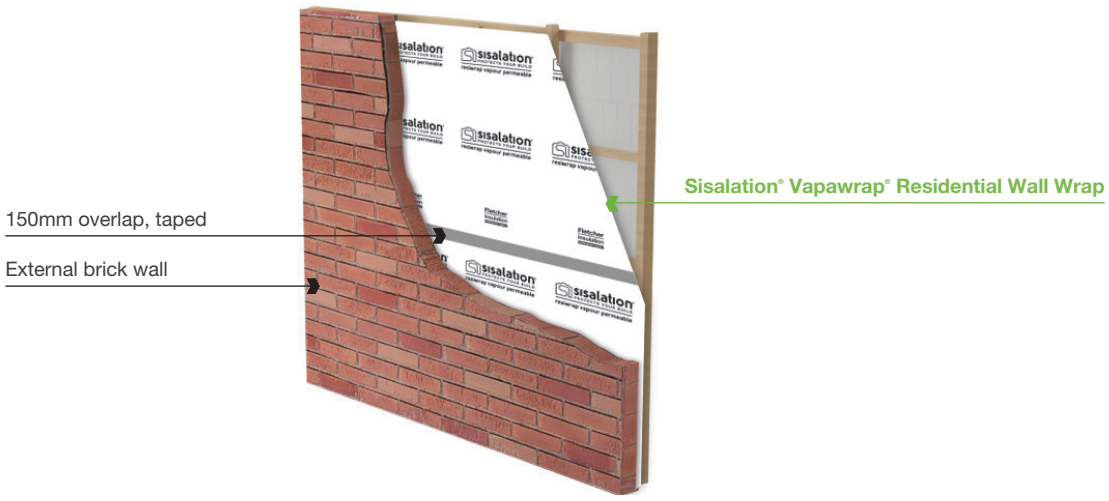
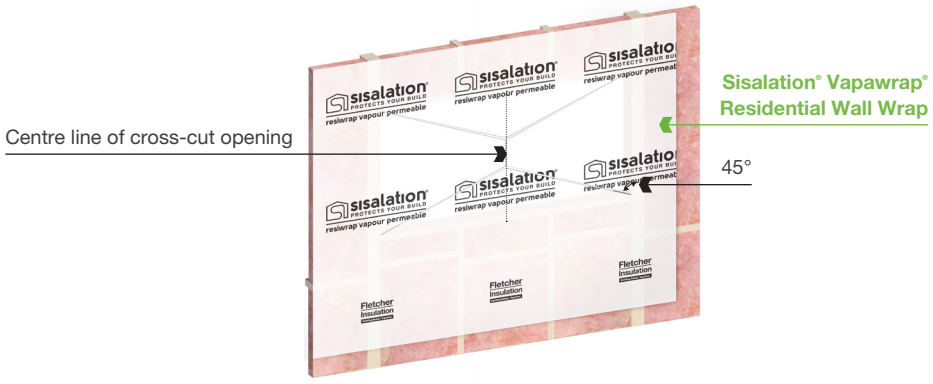


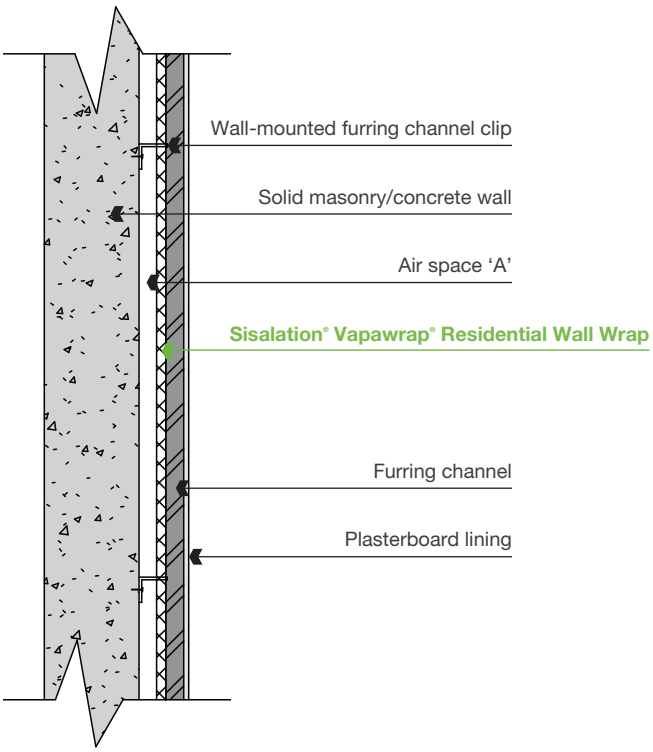
Figure 4: Sisalation® Vapawrap® Residential Wall Wrap installation on window frame



Cavity or solid masonry, concrete walls

- Sisalation® Vapawrap® Residential Wall Wrap can be installed in residential solid masonry or concrete walls. Refer to **Figure 5**.
- The masonry mortar and/or concrete must be cleaned and dried before Sisalation® Vapawrap® products can be installed.
- Sisalation® Vapawrap® products can be installed horizontally or vertically as a continuous membrane by fixing it to the wall using proper fixing method such as cavity wall ties, furring channel clips, TEK screws etc.
- The fixing frequency depends on the application but the Sisalation® Vapawrap® products need to be secured in place.
- The membrane shall be neatly cut and properly sealed to allow any lining clips or ties to penetrate through.
- Where certain air gap is required for thermal or other purpose, proper spacers against the wall are recommended to maintain the membrane's position.
- All joints shall be lapped not less than 150mm or 50mm taped. Tape all where needed to achieve the desired function such as air barrier.
- Any damage or tears on the membrane need to be repaired or replaced before the lining installed.

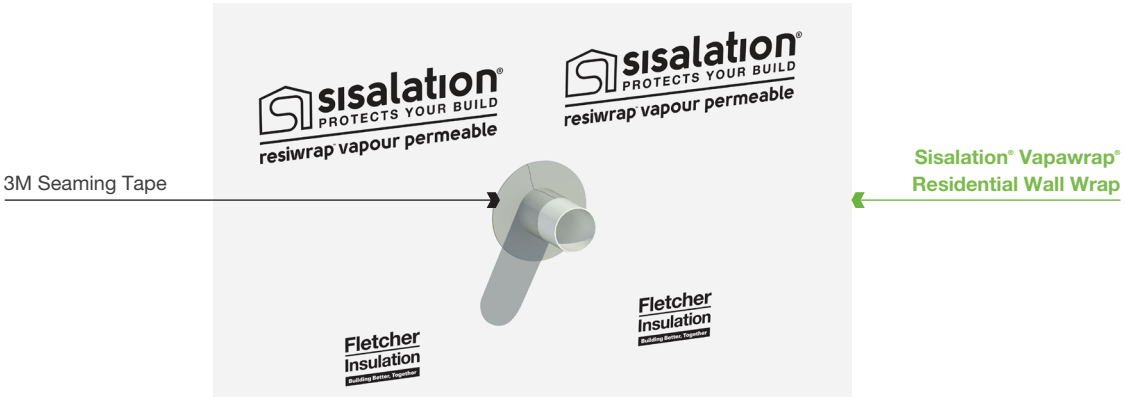
Figure 5: Sisalation® Vapawrap® Residential Wall Wrap in solid masonry/concrete wall



Penetrations

- Any damage made to the Sisalation® vapour permeable building membrane during installation, including holes and tears, must be repaired.
- Off cuts 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 3M Seaming Tape, shall be used to seal the penetration, maintaining an air and water tight seal around the service. Refer to **Figure 6.**
- Tape and seal all overlapped joins, penetrations and discontinuities with 3M Seaming Tape to prevent air movement.
- The Sisalation® vapour permeable 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 any gaps.

Figure 6: 3M Seaming 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.