

# PRODUCT INSTALLATION GUIDELINES

## PERMASTOP® BUILDING BLANKET FOR METAL ROOFS & WALLS

### Product performance:

- After unpacking, the product is designed to achieve its nominal stabilised thickness within 24 hours of installation.
- The performance of this product may be reduced if stored for too long in its compression packaging.
- The Total R-value depends on installation and may be greater or less than the Material R-value of the product.
- The Material R-value represented on the pack is determined at a mean temperature of 23°C as per AS/NZS 4859.1:2002 including Amendment 1.
- The Material R-value is independent of heat flow direction.
- Where aesthetics is of critical importance, Fletcher Insulation recommends installing the foil layer separately followed by the glasswool building blanket.
- The following points relate to White Coated Permastop® Building Blanket:
  - Must be stored in a dry area away from direct sunlight.
  - Is not UV stable, hence it must not be installed where exposure to direct or indirect ultra-violet (UV) light is possible.
  - If being installed in a corrosive chemical environment (non-standard atmosphere), a sample shall first be tested for its chemical resistance to ensure product life.
  - Must not be subject to temperatures exceeding 70°C. This may be achieved by installing Permastop® Building Blanket with the glasswool blanket against the outer cladding and the white surface facing internally (standard installation).
  - FI 440 WF tape is suitable for sealing joins.

### Important notes:

- All insulation shall be installed in accordance with AS3999-2015.  
CAUTION: Electric cables and equipment partially or completely surrounded with bulk thermal insulation may overheat and fail. This applies to wiring installed prior to 1989. Refer to AS3999-2015: Section 2.6 for details. Cabling post 1989: continuous electrical cabling (240 volts) cannot be fully surrounded by the insulation for a length greater than 300mm. In runs greater than 300mm, the electrical wiring must be touching a timber stud or the plaster lining.
- Prior to and during installation, Permastop® Building Blanket must be kept dry.
- Where cutting is required, use a sharp knife and straight edge. Cutting with power tools is not recommended.
- For commercial roof spans greater than 900mm, support (safety mesh or the like) must be provided below the Permastop® Building Blanket.
- Permastop® Building Blanket is not a sarking membrane (except in Northern Territory), hence shall not be lapped into the gutter. When Permastop® Building Blanket is used in tropical climates such as Northern Territory with the Sisalation® Anti-glare Facing Foil facing upwards, adequate amount of bulk insulation shall be removed before ensuring it overrides the fascia by at least 25mm, but not so as to restrict the flow of water into the gutter.
- When the foil surface is required to maintain a vapour barrier, all joins shall be sealed with a suitable Fletcher Insulation™ foil tape.
- Permastop® Building Blanket is not designed to withstand weathering; hence external cladding shall be applied without delay. The product is not suitable for applications where subject to wetting or excessive moisture.
- Alkali products are liable to corrode aluminium foil; hence the foil surface shall not be used in contact with wet concrete/mortar or corrosive atmospheres.

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## Commercial (warehouse) metal roofs:

- For the reflective foil surface to provide extra thermal resistance there must be a 20mm (minimum) still air cavity adjacent to a clean reflective foil surface. The Total R-value (thermal resistance) can vary dramatically with application.
- The foil surface shall face inward, except in tropical climates where the foil often faces outwards for condensation control (where aesthetics are important in roofs located in tropical climates, Fletcher Insulation recommends that the blanket is laid with the reflective surface facing inwards and that an ADDITIONAL layer of Sisalation® reflective foil laminate is laid over the blanket prior to fixing the metal deck).
- When the foil surface is exposed internally, care shall be taken not to excessively crease the foil surface prior to and during installation.
- Permastop® Building Blanket shall be laid over the purlins (reflective surface to face inwards into the air-space below) in the same manner as the wire mesh.
- The foil lap on Permastop® Building Blanket allows joins to be concealed. For ease of installation each consecutive roll shall be laid over the lap ensuring the glasswool is butted firmly against the adjacent roll.
- When the foil surface is required to maintain a vapour barrier, all joins shall be sealed with a suitable Fletcher Insulation™ foil tape.
- Fix metal decking to purlins with fasteners using a suitable insulation spacer to allow the blanket to recover to its nominal thickness.

## Residential pitched metal roofs (flat ceiling):

- For the reflective foil to provide extra thermal resistance there must be a 20mm (minimum) still air cavity adjacent to a clean reflective foil surface.
- The foil lap on Permastop® Building Blanket allows joins to be concealed. For ease of installation each consecutive roll shall be rolled over the lap.
- Permastop® Building Blanket shall be lapped not less than 150mm at all sidelap and endlap joints.
- Some manufacturers of metal roofing nominate a maximum thickness of insulation under their roof profiles (particularly concealed fixed profiles); please check metal roof manufacturer's recommendation before installation.
- The foil surface shall face inward, except in tropical climates where the foil often faces outwards for condensation control.
- Permastop® Building Blanket can be easily cut with the use of a sharp knife and a straight edge to compress the insulation.
- Permastop® Building Blanket may be installed over the battens ensuring the bulk insulation is continuously in contact with the underside of the roof sheeting.
- Permastop® Building Blanket may be laid ridge to gutter or parallel to gutter.
- Special care shall be taken to avoid tearing or puncturing the pliable building membrane during its installation, such as by contact with back edges of gutters. The pliable building membrane shall be properly cut around obstacles, and all openings shall be sealed.

## Commercial metal clad walls:

- Drape Permastop® Building Blanket from the roof line to the ground, trimming length where necessary and ensuring the 150mm overlap is facing the direction where the consecutive roll is to be installed.
- Ensure the two glasswool side edge surfaces of Permastop® Building Blanket abut butted firmly at joins and a continuous vapour barrier is achieved. The 150mm foil lap will transfer over the initial 150mm of the consecutive roll where it is to be sealed using a vapour impervious tape.
- Working from the roof line down, fix external cladding to girts, leaving sufficient slack in the Permastop® Building Blanket to recover to its nominal thickness between the girts and the cladding.
- Ensure there are no gaps across the surface area of the wall so as to avoid heat leakage.

## Taping guidance for Permastop® Building Blanket:

- Apply Fletcher Insulation™ Double Sided Cloth tape to the outer edge of the 150mm foil overlap ensuring strong adhesion is achieved by applying adequate pressure.
- Shortly before laying the consecutive roll of Permastop® Building Blanket, remove the Double Sided Cloth Tapes protective strip.
- Carefully roll out the consecutive roll of Permastop® Building Blanket over the previous lap ensuring the two glasswool surfaces abut and a continuous vapour seal is achieved.

Note: if your project requirements vary to the application/installation guidelines provided, contact Fletcher Insulation for advice prior to commencing the installation.

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