

Installation of Pliable Building Membranes in Roof

1-1. The following requirements apply to the installation of pliable building membranes in roofs:

- (1) The pliable building membrane shall be selected and installed to fulfil the function specified in the design.
- (2) All joints shall be –
 - 1) Overlapped not less than 150mm; or
 - 2) Overlapped not less than 50mm and taped on the exterior face.
- (3) All end joints shall be positioned over supporting members.
- (4) The pliable building membrane shall be supported by either –
 - 1) Draping over the roof battens, trusses or rafters, with a sag at a slope of not less than 2° to facilitate drainage; or
 - 2) Supporting on safety mesh or other continuous support where available.
- (5) Installation across the roof trusses or rafters shall be by unrolling parallel to the fascia, where positioned below the roof battens.
- (6) The pliable building membrane shall continue over the ridge with an overlap of not less than 150mm. Where specifically designed ridge ventilation is installed, the membrane shall be terminated at the ventilation.
- (7) The pliable building membrane shall be cut around obstacles, and all openings shall be sealed. 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.
- (8) At valleys, the pliable building membrane shall be carried beyond the inside vertical face of the valley batten, turned down into the edge of the valley tray and held in place between the metal roof sheet and valley batten by fixing the valley batten parallel to the valley gutter. The membrane shall overlap the valley edge by not less than 25mm.
- (9) At fascias and barges, the pliable building membrane shall extend beyond the front edge of the fascia or barge and protrude not more than 25mm beyond the fascia or barge.
- (10) Where acting as a water control membrane, the pliable building membrane shall be installed at a slope of no less than 2 degrees to facilitate drainage.

1-2. Thermal control membranes

Where a pliable membrane is to function as a thermal control membrane, the membrane shall be installed with an air gap either-

- (1) As calculated in accordance with AS/NZS 4859.1; or
- (2) Not less than 20mm.

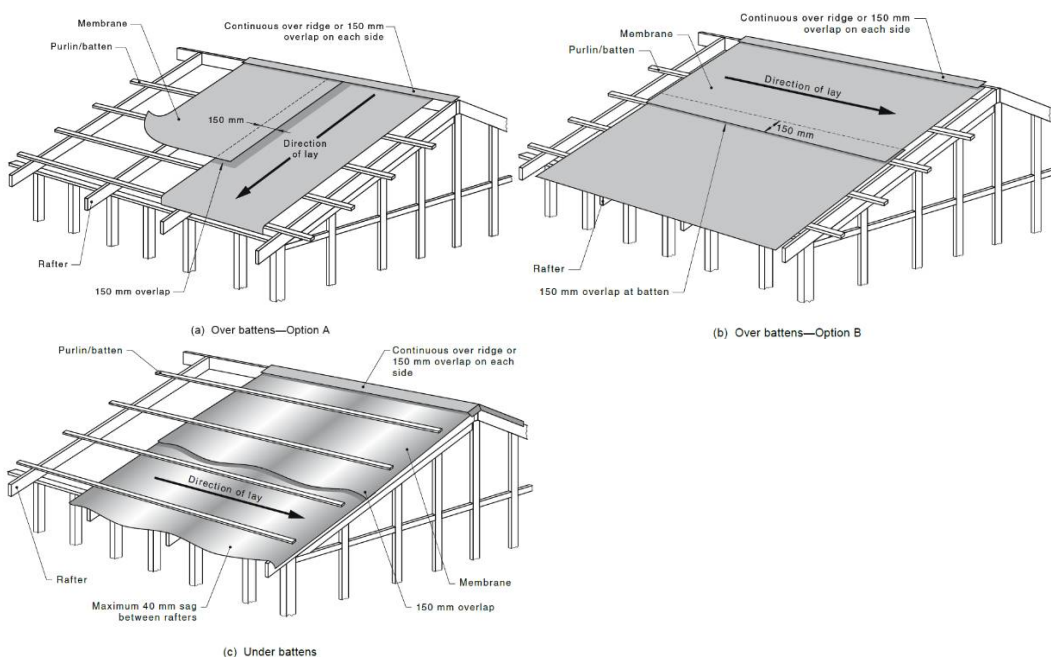


1-3. Water control membranes (sarking)

Where a pliable building membrane is intended to function as a water control membrane, the upper sheets shall overlap the lower sheets by not less than 150mm, or 50mm taped on the exterior face to ensure water is shed to the outside face of the membrane. All penetrations shall be sealed and the membrane shall be installed to facilitate drainage to the building flashing.

2-1. The following requirements apply to the installation of pliable building membranes beneath metal sheet roofing:

- (1) Where positioned above the roof purlins/battens, the following applies:
 - 1) The pliable building membrane shall be-
 - a) Installed by unrolling from ridge to eave; or
 - b) Installed by unrolling parallel to the fascia, provided all side joints occur over a roof batten or purlin, where the membrane is unsupported.
 - 2) All joints shall be installed in accordance with all requirements mentioned in the first page.
- (2) Where intended to be positioned below the roof purlins/battens, the pliable building membrane shall be installed across the roof trusses or rafters by unrolling parallel to the fascia
- (3) Where faced to a bulk insulation blanket, the pliable building membrane shall be terminated at the external edge of the fascia or, in the absence of a fascia, at the last batten.
- (4) For rafter construction with horizontal lay, jointing of lengths of pliable building membranes shall be achieved by overlapping the ends of the pliable building membrane and fastening the pliable building membrane to the rafters.





2-2. Thermal control membranes under metal roofs:

- (1) Where a pliable building membrane is specified to function as a thermal control membrane, the following additional requirements shall be met:
 - 1) The designed air gap shall be maintained.
 - 2) A thermal control membrane with upward facing infrared reflective surface shall be installed with the air gap either-
 - (a) As calculated in accordance with AS/NZS 4859.1; or
 - (b) Not less than 20mm

Where pliable building membranes are installed over the battens, a minimum 20mm air gap between the underside of the sheet roofing and the pliable building membrane shall be provided.

2-3. Vapour control and air control

Where a pliable building membrane is installed as a vapour barrier or as an air control membrane, either independently or faced to a bulk insulation blanket, the design measures shall be met

If the product is installed and used as a vapour control membrane, Class 1 or Class 2, or as an air barrier, it shall be continuously sealed at all discontinuities, end laps, joints and penetrations by

- (1) A pressure sensitive, heat and moisture resistant tape;
- (2) Adhesive of equal or greater vapour resistance than the vapour control membrane;
- (3) Heat and moisture resistant adhesive tape;
- (4) Mechanical fixing with adhesive sealant; or
- (5) Adhesive bond.

3-1. The following requirements apply to the installation of pliable building membranes beneath tiled roofing:

- (1) Positioned below the roof battens; and
- (2) Installed across the roof trusses or rafters by unrolling parallel to the fascia.

3-2. The laying of pliable building membranes beneath tiled roofing shall comply with the following:

- (1) The pliable building membrane shall be draped across the rafters or trusses, prior to battening, with a sag not greater than 40mm or not greater than the supporting battens.



- (2) Successive courses of the pliable building membrane shall overlap the adjoining course to ensure continuity of water flow and air pressure. This shall be achieved with a side lap of not less than 150mm, or 50mm taped on the exterior face; when the pliable building membrane is secured to each rafter.
- (3) In the case of rafter construction, jointing of lengths of the pliable building membrane shall be achieved by overlapping the ends of the pliable building membrane one rafter space and fastening the pliable building membrane to the rafters.
- (4) The pliable building membrane shall be fixed so that the membrane drains into the gutter. An anti-ponding device/board shall be provided in accordance with AS 2050.

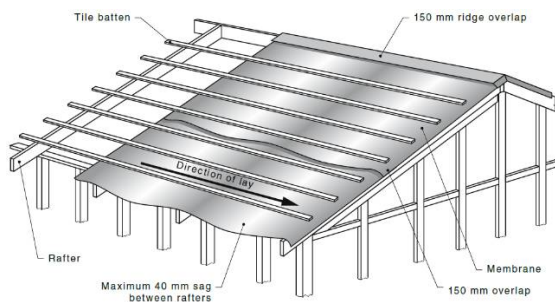


FIGURE 3.5.1(A) INSTALLATION OF MEMBRANE UNDER TILED ROOF

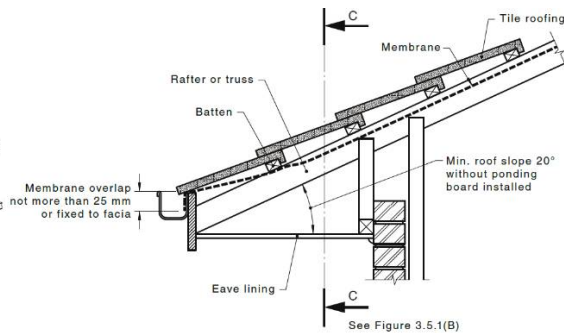


FIGURE 3.5.1(C) HIGH PITCHED TILED ROOF (NO ANTI-PONDING BOARD)—MEMBRANE INSTALLED UNDER BATTENS

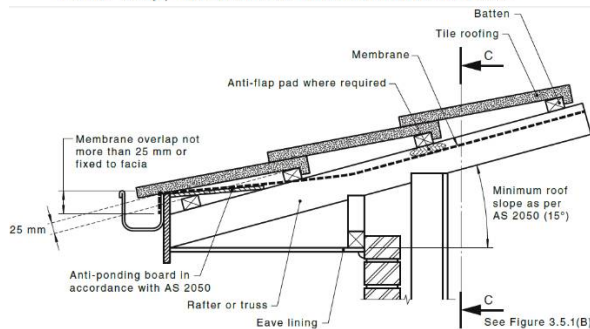


FIGURE 3.5.1(D) LOW PITCHED TILED ROOF (WITH ANTI-PONDING BOARD)—MEMBRANE INSTALLED UNDER BATTENS

3-3. Thermal control membrane under tiled roofs

Where a pliable building membrane is intended to function as a thermal control membrane, the membrane shall be installed with the calculated air gap to achieve the required R-value between each side of the membrane and a building lining or cladding. Thermal control membranes shall be installed with the air gap either-

- (1) As calculated in accordance with AS/NZS 4859.1; or
- (2) Not less than 20mm.

Where the membrane is installed under the roof battens, it shall be installed with a sag of no more than 40mm.