

# PERMAVENT

Ultra  
Strong  
Breather  
Membrane

**160**  
grams

**1.5x50m (75m<sup>2</sup>)**  
**12.1kg**

## BREATHER MEMBRANE TECHNICAL DATA

Permavent membranes are suitable for use in all applications as described in BS 5534.

For use on all types of domestic and commercial roofing and walling applications, including:

- ✓ COLD NON-VENTED
- ✓ TRADITIONAL HYBRID
- ✓ COLD VENTED
- ✓ SCOTTISH AND FULLY BOARDED APPLICATION

Weight, g/m <sup>2</sup>	160
Water tightness, class	w1
Water vapour transmission (sd), m	0.02
Maximum tensile force (MD), N/50mm	360
Maximum tensile force (CD), N/50mm	250
Elongation at max. tensile force (MD), %	90
Elongation at max. tensile force (CD), %	110
Resistance to tearing MD (nail shank), N	250
Resistance to tearing CD (nail shank), N	340



UK Wind Zones

**1-5**

taped lap

**1-3**

battened lap



Permavent breathable membranes must be installed in accordance to BS 5534 Code of Practice. The installer must ensure compliance with the relevant building regulations.

Our membranes are designed as a secondary barrier to wind driven rain / snow and should not be considered a primary waterproofing layer. Whilst they can withstand UV exposure for up to 3 months, it is best practice to install the primary waterproofing finish (e.g. slates, tiles etc) as soon as possible.

Permavent membranes must be installed the correct way up, with the Permavent logo printed side uppermost.

For tile and slate roof applications the membrane should be laid horizontally across the rafters starting at the eaves and secured in place with either batten or membrane tape.

The minimum horizontal laps for membranes, in accordance to BS 5534, are:

Rafter Pitch	Not Fully Supported	Fully Supported
12.5° - 14°	225mm	150mm
15° - 34°	150mm	100mm
35° and above	100mm	75mm

An eaves carrier tray (EPS or tilting fillet) should always be installed where the felt runs over the fascia and into the gutter.

Permavent membranes should be installed at least 75mm up any wall or abutment and sealed in place using tape. Vent pipes, roof lights and apertures on the roof should also be sealed with tape and any nail tears or damage must be repaired.

### Cold vented roof (most common type) and Hybrid roof (or habitable roof space)

Place your eaves carrier tray over your fascia ensuring that each carrier laps the next one by at least 75mm and is sealed together using tape. Ensure the ventilation is correctly installed.

Unroll the tape along the length of the eaves carrier about 50-100mm up from the back of the fascia and leave the protective tape in place. If required a strip of membrane at least 600mm wide should now be installed up any valley sections.

Unroll the Permavent membrane along the line of the eaves with the bottom of the roll covering the eaves carrier and tape, but not hanging over the fascia. When installed over rafters the membrane should not be pulled tight but allowed to slightly dip (about 5-10mm) between the rafters so that water can run under the battens. Clout nail the very top of the membrane (this will be covered by the lap of the next run) and fix the battens at your required spacing.

Lift the lower section to reveal the tape on the eaves tray, peel off the protective top layer and stick the membrane to the eaves carrier. Lap the next course of membrane along the printed lap line, secure with counter batten or tape and repeat up the roof.

When you reach the ridge, you should consider the other side of the roof and ensure that the membrane is lapped over the ridge by the final roll and laps the other side fully. A ventilated ridge will have its own installation instructions that should be followed.

Where rafters and wall plates etc. abut masonry that rises above the roof line (e.g. chimneys) the membrane should be extended up the abutment (wall / chimney etc) by at least 75mm. Provision should be made to guard against sagging by using tape to adhere the membrane to the walling.

### Cold non-vented roofs (energy efficient roof)

This type of roof is laid in much the same way as a traditional roof, but care must be taken to ensure the system is installed with good working practice. We recommend the use of a vapour control layer such as PERMAVENT PRO VCL when a non-ventilated roof is installed with breather membranes.

This roof type has no active ventilation of the roof space (no soffit, eaves or ridge vents). Install the PRO VCL vapour control between the habitable rooms and the roof space (usually at ceiling level) behind the plasterboard in addition to the Permavent membrane. Laps should be sealed using tape.

### Warm deck roofs (insulation between and or over or under the rafters)

Fit an eaves carrier as before and lay out the first roll of membrane directly onto the insulation or rafters. For insulation between the rafters, the insulation should be 10mm below the line of the top of the rafter.

If the insulation is flush or on top of the rafter, then a counter batten of at least 10mm must be laid up and on top of the rafters. This counter batten will allow any rain or moisture to run under the normal roofing battens and off the roof.

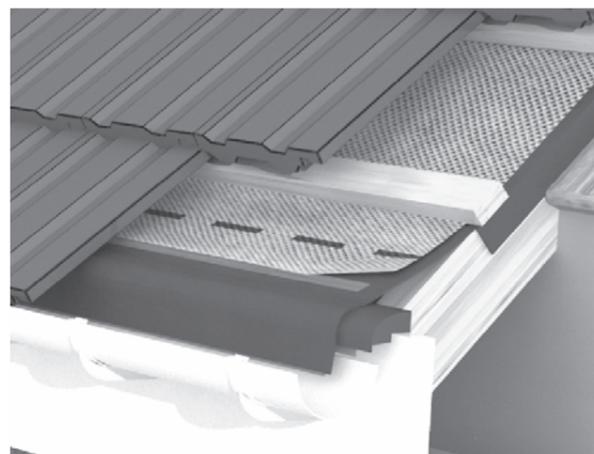
If the counter batten space is to be used for ventilation then advice should be sought from the designer on the size of that counter batten, carry on up the roof as before.

### Warm deck and cold non-vented roofs

Permavent breathable membranes works so well at releasing vapour from the roof space that it can sometimes condensate on the underside of the roof covering (slates etc) before this moisture can escape to the atmosphere. However, some coverings such as plain tiles allow sufficient air to pass through them (air open) as to clear any vapour that has escaped from the roof space and passed through the membrane, in this case above the membrane ventilation is not required.

Tightly fitting coverings such as manmade slates or metal sheet roofing may trap this vapour causing interstitial condensation that can adversely affect the covering as well as prematurely ageing the battens. Ventilation should therefore be used over the fascia and at the ridge to clear it. The designer should check the advice of the slate or roof covering manufacturer before you proceed without ventilation.

Conventional cold vented roof



Habitable room (hybrid)



Warm deck roof



Conventional non-vented roof

