Permavent Vapour Permeable underlay must be installed in accordance to BS 5534:2014 + A2:2018 Code of Practice. The installer must ensure compliance with all building regulations: BS 5250:2021 Management of Moisture in Buildings.

Permavent Vapour Permeable underlays 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 Vapour Permeable underlay must be installed the correct way up, with the Permavent logo printed side uppermost. For tile and slate roof applications Permavent Vapour Permeable underlay 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 Permavent Vapour Permeable underlays, in accordance to BS 5534:2014 + A2:2018, 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 Vapour Permeable underlays 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 pitched roof (insulation at ceiling level)

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.

If required a strip of Permavent Vapour Permeable underlay at least 600mm wide should now be installed up any valley sections.

Unroll the Permavent Vapour Permeable underlay 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 Permavent Vapour Permeable underlay should not be pulled tight but allowed to slightly drape (about 5-10mm) between the rafters so that water can run under the battens. Clout nail the very top of Permavent Vapour Permeable underlay to your required spacing.

Lap the next course of Permavent Vapour Permeable underlay 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 Permavent Vapour Permeable underlay 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) Permavent Vapour Permeable underlay 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 Permavent Vapour Permeable underlay to the walling.

Warm pitched roof (insulation between rafters) and Hybrid roof space (or habitable roof space)

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

If the insulation is flush or on top of the rafter, or for fully-supported application then a counter batten of at least 10mm mustbe 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.

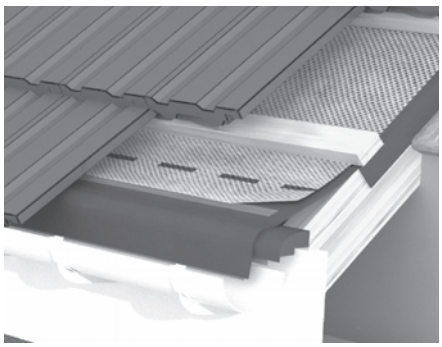
If the counter batten space is to be used for ventilation then advice should be sought from the designer on the size of that counter batten, carry on up the roof as before.

Warm & cold roof applications

Where Permavent Vapour Permeable underlays (type LR) are used in both cold and warm roofs to contribute to the control of condensation, they do so by allowing water vapour to escape through the material by diffusion. It is important that this water vapour can escape to atmosphere from the batten space. BS 5250 defines a test to determine whether a roof covering is sufficiently air open and asks manufacturers of the roof covering to provide advice.

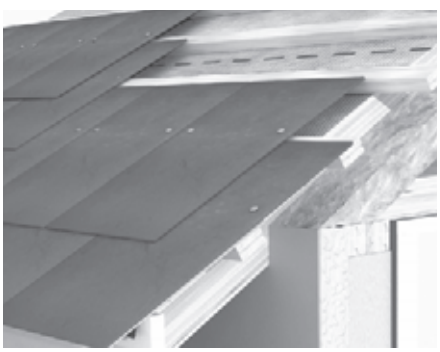
Tightly fitting coverings such as manmade slates or metal sheet roofing may trap this vapour causing interstitial condensation that can adversely affect the covering as well as prematurely ageing the battens. Ventilation should therefore be used over the fascia and at the ridge to clear it. The designer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

Cold pitched roof (insulation at ceiling level)



Habitable roof space (hybrid)

Warm pitched roof (insulation between rafters)



Specification Clause:
Vapour Permeable underlay to be Permavent GRAPHITE supplied by Permavent Ltd 11 Cumberland Drive, Granby Industrial Estate, Weymouth, Dorset DT4 9TB. Email: enquiries@permavent.co.uk. Vapour Permeable underlay to be of triple ply construction, 130gsm with waterproof and vapour-permeable core laminated and protected between two layers of non-woven spun-bonded polypropylene to achieve a hydrostatic head of water more than >2.0m. Tensile strength to be equal or greater than MD N/50mm: 310, CD N/50mm: 220. Resistance to wind uplift: unrestricted use at 345mm batten gauge zones 1- 5 when taped. Vapour Permeable underlay to be laid unsupported or fully supported in accordance with BS5534:2014+A2:2018 and to manufacturer's instructions.