Roll size

1.5m x 50m

TAPED

Roll weight

10.2kg

5 060747 291562

PERMAVENT GRAPHITE

VAPOUR PERMEABLE

UK Wind Zones

1	2	3	4	5

taped lap

Permavent vapour permeable underlays are suitable for use in all applications as described in BS 5250 and BS 5534.

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

- ✓ Traditional cold & warm pitched roofs
- ✓ Hybrid pitched roofs
- ✓ Scottish practice/ boarded pitched roofs
- ✓ Pitched roofs with all types of solar panels

Weight, g/m²	130
Resistance to water penetration, Class	W1
Water vapour transmission (Sd), m	0.02
Tensile strength MD / CD, N/50mm	245 / 175
Elongation at max. tensile force MD / CD, %	60 / 60
Resistance to tearing (nail shank) MD / CD, N	≥50 / ≥50
UV stability, Months	3
Reaction to fire, Class	E

PERMAVENT

For installation guides on all our products, please visit our website

PERMAVENT.CO.UK

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UK CA CE

BBA APPROVAL INSPECTION TESTING CERTIFICATION
CERTIFICATE 25/7479

Permavent vapour permeable underlays must be installed in accordance with BS 5534:2014 + A2:2018, Slating and tiling for pitched roofs and vertical cladding — Code of practice. The installer must also ensure compliance with all relevant building regulations. The dwelling or building below the roof space must be ventilated adequately. Extractor fans should be installed in spaces of high humidity. Cold water tanks covered when situated in loft spaces and all pipework lagged with insulation. Any penetrations through the ceiling of the occupied space into the roof space must be sealed, alongside sealed loft hatches. Further detailed information on achieving a well-sealed ceiling can be found in BS 5534:2014 + A2:2018 as well as the BBA certificate for the Permavent underlay.

Our underlays are designed to reduce wind uplift on the outer roof covering, provide a secondary barrier to wind driven rain / snow and to assist the management of moisture in buildings. However, they should not be considered a primary waterproofing layer. Whilst they can withstand UV exposure for up to three months, it is always best practice once the roof underlay has been installed, to install the primary waterproofing layer of the external roof covering (e.g. slates, tiles) as soon as possible. Indeed, if the underlay must be left without a roof covering for a period when adverse rainfall and weather is expected, a tarpaulin or similar protective sheeting is recommended to be used to protect the underlay and battens until such time that the roof covering can be completed.

Permavent underlays must be installed the correct way up, with the Permavent logo printed side uppermost. For slating and tiling roof applications all Permavent underlays with integrated tapes should be laid horizontally across the rafters starting at the eaves with all horizontal laps between rolls sealed using the integrated tapes set at 100mm lap in accordance with BS 5534:2014 + A2:2018. When sealing the laps ensure the course of the underlay above laps over the underlay course below such that the 100mm taped lap lines align and integrated tapes match up. Proceed by then removing the protective film slowly from the top layer first followed by the bottom layer and then adhering the tapes together using a flat hand to make a downwards brush stroke at right angles to the tapeline. It is important that the above is carried out consistently across the width of the roof and the hand brushes are kept at a right angle to the tapeline to avoid creases in the underlay.

The Permavent Underlay Support Tray should always be installed to support the underlay at the eaves and maintain a positive fall to the eaves gutter.

COLD PITCHED ROOF INSTALLATION

Place the Permavent Underlay Support Tray over the fascia ensuring that each tray laps the next one by at least 100mm.

The Permavent underlay should then be laid over the underlay support tray. Unroll the Permavent underlay along the line of the eaves with the bottom edge of the roll covering the underlay support tray level to the front edge of the top of the fascia. When in position, peel back the protective film off the integrated tape of underlay and secure the underlay to the underlay support tray. When installed over the rafters the underlay should have a drape not exceeding 15mm but sufficient to allow water drainage beneath the roof tiling battens. Clout nail the very top of the underlay roll and fix the tiling battens at the required gauge depending on the roof covering. Lap the next course of underlay along the printed lap line, sealing and securing the horizontal laps with the integrated tapes. Repeat the process up the roof slope as required.

WARM PITCHED ROOF INSTALLATION

Install the underlay support tray and the Permavent underlay as you would on a cold pitched roof application.

For insulation between the rafters, the top of the insulation should be finished approximately 40mm below the top of the rafter to allow for the 15mm maximum drape of the underlay and maintain a clear 25mm deep ventilation channel as required by BS 5250:2021. If the insulation is flush with or on top of the rafters, install the Permavent underlay fully supported on top of the insulation and then install counter battens of no less than 10mm depth on top of the rafters. This counter batten will allow a drainage channel beneath the tiling battens so any wind-driven rain or moisture that gets onto the underlay can run under the tiling battens and down to the eaves gutter.

For a warm pitched roof construction, it is advisable for an AVCL membrane to be installed on the warm side of the insulation. If tight fitting primary roof coverings are being used instead of air-open roof slates or tiles the roof will need minimum 25mm deep counter battens and the counter batten cavity will need ventilating in line with BS 5250:2021 with 25mm low level continuous eaves ventilation and 5 mm continuous high level ventilation.

DETAIL INSTALLATION

Valleys: A strip of underlay at least 600mm wide should be installed up any valley section on top of the valley support board where a non-sheet metal valley (e.g. GRP valley) is to be installed. Underlay should not be laid under a metal valley such as a lead valley. The underlay on the roof slope is then dressed up and over the edge of the valley but not beyond the valley batten.

Hips: The Permavent underlay should overlap both sides of the hip by a minimum of 150mm on each side.

Verges: The underlay is carried over and extended on to the external wall by 25-50mm for a bedded verge. For proprietary dry verges follow the manufacturer's instructions.

Ventilated ridges: The Permavent underlay is dressed up to, but laid short of, the apex of the ridge to allow a ventilation gap. For Permavent Universal Dry Ridge the underlay is laid short by no less than 20mm.

Side abutments: At side abutments at walls the Permavent underlay should be turned up the abutment by not less than 50mm under the flashings.

All penetrations through the roof such as for ventilation tiles, roof lights, dormers, chimneys, and other roof apertures require correct detailing of the underlay in accordance with the manufacturer's installation instructions. Permavent Permatac High Tack Sealing Tape can be used to assist in this detailing as well as repair and seal any nail tears or damage to the underlay.

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. Resistance to wind uplift: Can be used at 345mm batten gauge in zones 1 - 5 when horizontal underlay laps are taped. Vapour permeable underlay to be laid unsupported or fully supported in accordance with BS 5534:2014+A2:2018 and to manufacturer's instructions.