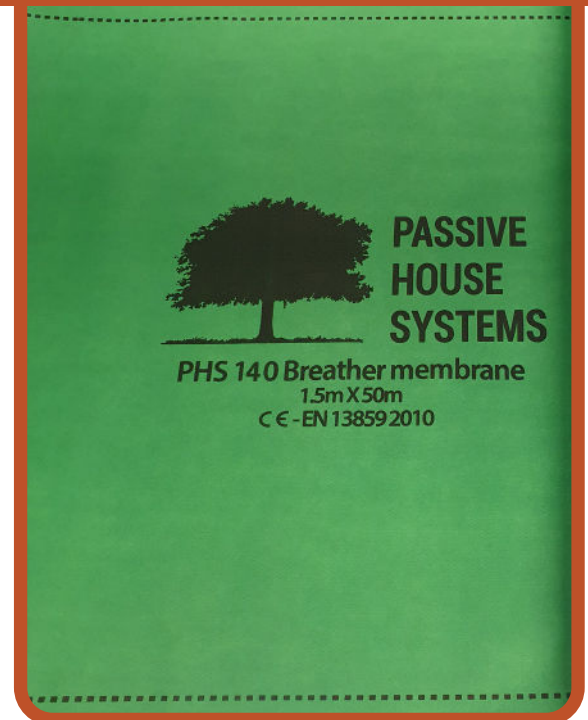


# PHS 140 Breather Membrane

The PHS 140 Breather Membrane is a triple layer fabric, high performance breather membrane, made from high tensile spun bonded polypropylene layers, around a micro-porous polypropylene film. It is designed, manufactured and quality assured for use in a fully supported or unsupported tile, slate or metal roof systems. The high vapour permeability and waterproof nature of the membrane, combined with excellent tensile/tear strength and high wind uplift resistance, makes PHS 140 Breather Membrane the professional's choice as the ultimate breather membrane.

The outer layer (printed layer) forms the functional waterproof surface, the middle layer is the breathable waterproof membrane, and the inner layer protects the membrane from abrasion and damage, also giving additional strength. This enables the fabric to allow moisture vapour to pass through, whilst remaining fully waterproof. The upper surface is green and printed with our trade name and overlap lines.



## Advantages

- Three layer membrane.
- Clean and easy to use.
- Lightweight and flexible.
- Excellent tensile and tear strength.
- Waterproof membrane.
- Long term durability.
- UV stable (3 months exposure).
- Warm and cold roof application.

## Related Products

- PHS Wolfy Overlap Tape.
- PHS MS Hybrid Sealant.
- PHS Foam Roof Nail Sealing Tape.
- PHS Service Grommets.
- PHS Double-Sided Tape.
- PHS Fusion Variable Plus Window Tape.

## Technical Data

Roll Weight (Kg)	11	
Weight (g/m <sup>2</sup> )	140	
Roll Length (m)	50	
Roll Width (m)	1.5	
Roll Area (m <sup>2</sup> )	75	
Colour	Green Upper / White Lower	
Tensile Strength (EN12311-1)	MD 240N/50mm	CD 196N/50mm
Elongation (EN12311-1)	MD 84.7%	TD 101.4%
Nail Tear Resistance (EN12310-1)	MD 171N	TD 215N
Water Vapour Transmission (Sd) (m)	0.018	
Resistance to Fire (EN13501-1)	Class E	
Water Penetration Resistance (EN13859-1)	Class W1	
UV Resistance	3 months	

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Passive House Systems products are used by diverse customer base for a wide range of technical and industrial applications. The demands made on our products vary considerably from application to application. We strongly advise users to test the products suitability for their own particular requirement.

All data and recommendations contained in this Technical Datasheet are based on our own test results and practical experience and are aimed at helping customers select the appropriate product. This information is provided without liability. We reserve the right to change the technical specification without prior notice. Samples are available free of charge. Our sales team are available to help support all technical specifications for our products.

# PHS 140 Breather Membrane

## Application

PHS 140 Breather Membrane must be installed in accordance with the relevant sections of BS 5534:2018 and NSAI S.R. 82:2017 and its fixing instructions.

PHS 140 Breather Membrane is designed as a secondary barrier to wind driven rain and snow, it should not be considered a primary waterproofing layer. Whilst the product is UV stable for up to 3 months exposure, good roofing practice dictates that the primary waterproofing finish (e.g. tiles, slates etc.) be applied as soon as practically possible.

PHS 140 Breather Membrane should be unrolled across the roof, starting at the eaves and working up the roof, it must be laid printed side up. With normal slates and tiles the membrane should be installed draped to a maximum 15mm into the void between the rafters in line with BS 5534:2018 and NSAI S.R. 82:2017 it can then be secured with the tiling battens.

This will leave sufficient space between the PHS 140 Breather Membrane and the tiles/slates for drainage and ventilation. When installed as a fully trusses supported system, is laid over on trusses and secured with counter battens. Alternatively the membrane can be installed over counter battens and fixed at 200mm centres using corrosion resistant galvanised clout nails. Tiling battens are fixed to the counter battens leaving a minimum airspace of 25mm between the roof sheet underlay and the tiles for drainage and ventilation.

In unventilated roof systems, vapour control measures are required below the insulation layer to restrict the flow of moist air from within the inhabited building into the roof space.

PHS 140 Breather Membrane should be turned up at abutments at least 100mm to prevent rain and snow being blown into the roof-space. 600mm reinforcing strips should be fixed at hips, ridges and valleys.

At the eaves, a felt support tray should be installed to prevent ponding behind the fascia. PHS 140 Breather Membrane should be laid over the support tray stopping short of the roof tile tails to prevent UV degradation of the underlay.

## Notes

1. As with all breather membranes of this type, contact with solvents or wet timber preservatives can cause localised water penetration to occur, prior to the main weatherproofing being installed.
2. In accordance with BS 5534:2018 and NSAI S.R. 82:2017, a roof underlay or breather membrane is to be laid over open rafters, to a maximum drape of 15mm between rafters, to guide any rainwater penetrating the main roof finish away from the rafters to the drainage point. (The membrane must not be pulled tight against the underside of the tiling battens.)
3. PHS 140 Breather Membrane should never be considered as being a total protection against wind-blown rain and high winds.
4. When laid with an impermeable primary barrier, ventilation would be required in line with BS5250.
5. In line with the NHBC directive 2012, high level ridge ventilation of a continuous 5mm should be provided when using a VPU.

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