



BREATHABLE MEMBRANE

High performance breathable underlay



Speedline is a range of quality ancillary products for a wide range of applications

General building and insulation essentials • Metal systems for dry lining and partitioning • Drywall accessories

Speedline Breathable Membrane is a high performance breathable (vapour permeable) underlay for use in both vented and non-vented cold and warm pitched roofs. Speedline Breathable Membrane is especially suitable for use in supported warm roof specifications where the insulation is located along the rafter line.

Independent Approval

Speedline Breathable Membrane has been fully assessed by the British Board of Agrément Certificate No 08/4595 for use as an unsupported or fully supported underlay for tiled or slated pitched roofs. It has also been assessed for use as an underlay in energy efficient non-ventilated cold pitched roof systems.

Description

Speedline Breathable Membrane is a thermally bonded UV stabilised laminate incorporating a vapour permeable film. The product resists penetration by liquid water yet allows the passage of water vapour.

Performance Benefits

- Low vapour resistance - defined by BS 5250:2002 as a vapour permeable underlay and suitable for use in energy efficient non ventilated cold pitched roof systems
- Breathable - suitable for warm roof applications
- Strong - three layer construction resists tearing
- Water resistant - achieves W1 classification when tested to BS EN 1928:2001 Resistance to water penetration
- Lightweight - easy to transport and handle
- Flexible - even at low temperatures
- Clean to use and easy to cut
- Durable - no performance deterioration at highest and lowest UK temperatures.

Accessories

An eaves protection strip is required for use as a starter strip at the eaves detail of pitched roofs, where its robust construction provides added durability at this exposed and more vulnerable location. This consists of a rot-proof polyester reinforcement saturated and coated with oxidised bitumen and finished with a fine sand surfacing.

Durability

Speedline Breathable Membrane will be virtually unaffected by normal conditions found in the roof space and will have a life comparable with that of the roof covering.

Uses

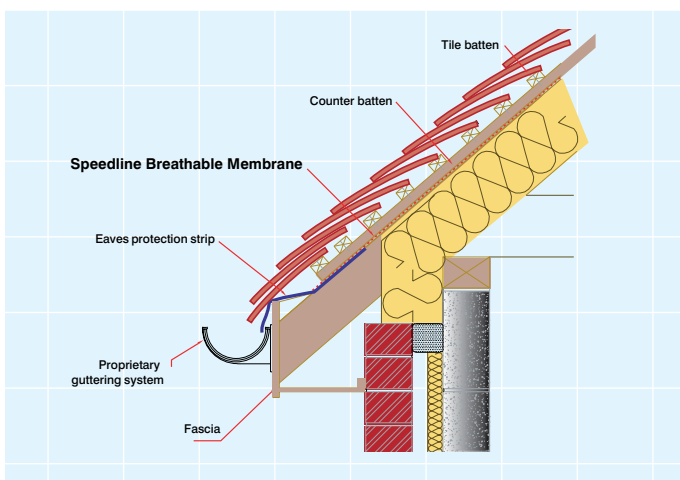
Speedline Breathable Membrane is a breathable pitched roof underlay designed to:

- Provide a barrier to minimize the wind uplift load acting on the slates or tiles.
- Provide a secondary barrier to the ingress of wind-driven rain, snow and dust.
- Facilitate the transport of any moisture penetrating the primary roof covering into the roof drainage system.
- Provide temporary weather protection before the installation of the primary roof covering.

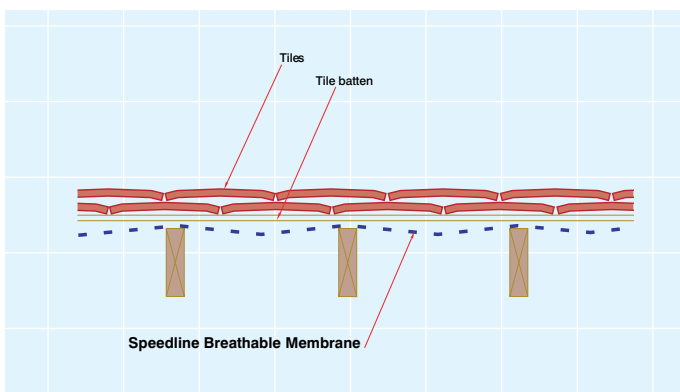
THE SPEEDLINE BREATHABLE MEMBRANE IS AVAILABLE IN THE FOLLOWING SIZES

Product Code	Roll (length x width)	Roll Weight	m ² Weight
MWS39200	50 x 1m	6.1kg	120g/m ²
MWS39210	50 x 1.5m	9.2kg	120g/m ²

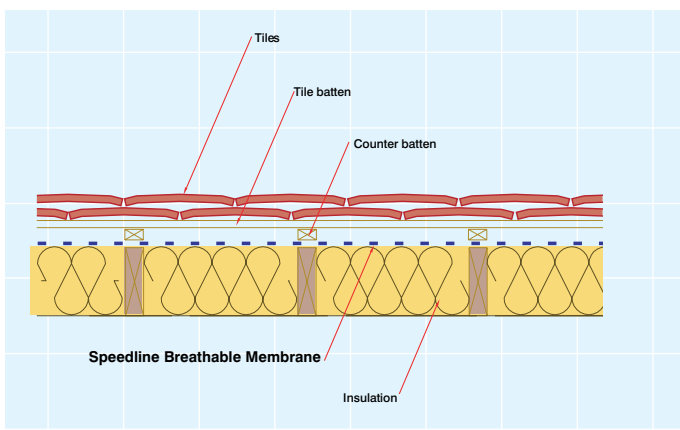
DETAIL 1 SUPPORTED UNDERLAY - EAVES DETAIL



DETAIL 2 UNSUPPORTED UNDERLAY



DETAIL 3 SUPPORTED UNDERLAY



GENERAL INFORMATION

Manufacture

Speedline Breathable Membrane is produced under a closely controlled system which conforms to the requirements of ISO 9001. Each roll is wrapped clearly identifying the product name, product code, roll width and length and the supplier's name and address.

Safety Information

The products do not contain hazardous substances. Handling risks: Take necessary precautions when lifting and manually handling. Wear suitable gloves to protect against abrasion.

Technical Support

For further information, please contact your local stockist.

Ordering

When ordering, reference should be made to the product code in order to avoid mistakes. Product codes can be found under the section 'Nominal Dimensions & Weights' of this data sheet.

Pricing

For current prices contact your local stockist. Speedline Breathable Membrane is offered subject to the stockist's conditions of sale, which are available on request.

Whilst every care is taken to see that the information given in this literature is correct and up-to-date it is not intended to form part of any contract or give rise to any collateral liability, which is hereby specifically excluded. Intending purchasers of our materials should therefore verify with the company whether any changes in our specification or application details or otherwise have taken place since this literature was issued.

Construction

Storage

Speedline Breathable Membrane should be stored on end, on a clean, level surface and be kept dry and protected from mechanical damage.

Installation

Speedline Breathable Membrane must always be used in accordance with the design considerations and methods of application stated in BS 5534: 2003 'Code of practice for slating and tiling' and with reference to the technical data sheet. Speedline Breathable Membrane must always be fixed with the **Grey, Printed** side facing outwards.

Speedline Breathable Membrane is unrolled across the roof parallel with and starting at the eaves and draped a minimum of 100 - 150mm onto a proprietary eaves protection product.

The eaves protection strip is dressed into the external gutter and provides greater protection from the effects of UV exposure*. Speedline Breathable Membrane should be fixed to the rafters or boarded sarking. When installed in an unsupported (open rafter) system, the underlay is fixed by draping over the rafters and securing in place with the tiling battens ensuring that there is sufficient drape to allow for drainage and air movement**. A drape of between 10 to 15mm is required to guide any penetrating rainwater away from the rafter fixing penetrations to the drainage point. The underlay must not be so taut that it makes contact with the underside of the tiling batten as this will impede the flow of rainwater down the roof to the drainage point. Alternatively, Speedline Breathable Membrane can be fixed to the rafters using counter battens with no drape (ie. pulled taut) prior to installing the tiling battens.

When installed as a fully supported system, for example over rafter level insulation in a warm roof situation, Speedline Breathable Membrane is laid over the support and secured using counter battens to the rafters. The battens for tiling are fixed to the counter battens leaving an air space between the underlay and the tiles for drainage and ventilation***.

Subsequent rows of underlay should be lapped over the underlying row by the amount shown in the following table. Note that Speedline Breathable Membrane is marked with a 150mm lap line which is correct for use on a 15 to 35° unsupported roof system. Adjacent rolls should have vertical overlaps of 100mm formed over a rafter position.

Ensure that when detailing around service penetrations, roof lights or chimneys, the underlay is dressed a minimum of 100mm to the upstand and is effectively sealed and weathered by an appropriate flashing.

Roof Pitch (°)	Horizontal Lap (mm) Unsupported	Horizontal Lap (mm) Supported	Vertical Lap (mm)
12.5 to 14	225	150	100
15 to 35	150	100	100
35+	100	75	100

Verges: At verges, Speedline Breathable Membrane should be turned up the bargeboard by a minimum of 50mm and fixed in place with a timber batten.

Ridges: In duo-pitched roofs, the underlay from one elevation should overlap the other by at least 150mm. In mono-pitched roofs, the underlay should be extended over the mono ridge by at least 100mm and it is recommended that the underlay is extended to provide protection to the ends of roof timbers.

Hips and valleys: These should be covered with a separate 600mm wide strip of Speedline Breathable Membrane.

Abutments: Speedline Breathable Membrane should be returned up the abutment by at least 75mm and covered by a proprietary flashing.

Non-ventilated Cold Roofs

For design purposes, the resistance to water vapour transmission of Speedline Breathable Membrane may be taken as not more than 0.25 MNs/g. This value can be used in roof designs shown in Section 8.4 of BS 5250:2002. For roofs designed in accordance with BS 5534:2003, Speedline Breathable Membrane may be regarded as a Type LR (Low Resistance) membrane.

The BBA Certificate states that for non-ventilated roofs using Speedline Breathable Membrane - 'the risk of condensation is equivalent to, or less than, that attending conventionally ventilated cold roof systems'.

However, the complete roof construction, ceiling boards to roof tiles, must be considered as a total system with regard to condensation risk.

Speedline Breathable Membrane, when installed in an unsupported system, can be fixed in the traditional manner for roof tile underlays, ie draped between the rafters, providing that the intended tiles or slates are sufficiently air open (if in doubt, seek advice from the tile / slate manufacturer and see note below). However, it is recommended that Speedline Breathable Membrane is fixed to the rafters using counter battens with no drape (ie. pulled taut) prior to installing the tiling battens. This construction provides a naturally vented batten space between the underlay and the tiles or slates.

Note: Some artificial slates and tiles are close fitting which may impede the passage of water vapour through the roof covering. In these circumstances, it will be necessary to ventilate the space between the underlay and the tiles. This can be achieved by using counter battens and providing appropriate ventilation apertures at the eaves to provide a naturally ventilated batten space. Alternatively, sufficient vent tile/slates can be used to provide adequate ventilation to the batten space. Guidance should be sought from the vent tile manufacturer and BS 5250.

* See detail 1 on page 3, ** See detail 2 on page 3, *** See detail 3 on page 3

The minimum thickness for tiling battens and counter battens must be 25mm.

To minimise the risk of condensation, the following additional measures must be taken:

- All penetrations into the roof space must be properly sealed and loft hatches made convection tight by, for example, using a compressible draught seal.
- Subsequent penetrations into the roof space must be properly sealed to ensure the integrity of the non-ventilated, cold pitched roof system is maintained.

Appropriate measures must be taken to limit the rate of water vapour transfer into the loft space from the dwelling below. These include:

- The dwelling below the roof must be ventilated in accordance with national Building Regulations and Standards.
- Extractor fans should be used in rooms that may experience high humidity such as kitchens, utility rooms and bathrooms. The ventilation rates should be in accordance with the guidance documents supporting current national Building Regulations and Standards.
- All water tanks in the loft space should be covered and all pipework lagged.
- Penetrations into the loft space from inside and outside must be sealed.
- For additional protection, the use of a vapour control layer / vapour check plasterboard should be considered.

Protection

Completed work should be protected from damage by subsequent site work.

Speedline Breathable Membrane is designed as a secondary barrier to wind driven rain and snow and should not be considered as a primary waterproofing layer. Good roofing practice is to install the primary waterproof covering (eg. tiles, slates) as soon as practically possible. Whilst providing some protection, Speedline Breathable Membrane should not be considered as a totally weatherproof protection for occupied buildings or when internal fitting out is taking place.

Site Quality Control

Regular inspection of the work in progress should be made to ensure that the work is executed to a good standard and in accordance with the specification.

Site Safety

Provision should be made for adequate scaffolding to ensure the safety of operators in accordance with safe working procedures.

Technical Characteristics

The following table, below, gives typical values for Speedline Breathable Membrane.

Characteristic	Method	Units	
Tensile Strength	BS EN 12311-1	N/50mm	LD 260 TD 175
Elongation	BS EN 12311-1	%	LD 43 TD 73
Resistance to Tearing	BS EN 12310-1	N	LD 115 TD 110
Resistance to Water Penetration	BS EN 1928		Class W1
Water Vapour Permeability	BS EN 1931	g/m ² /day	1065
Vapour Resistance	BS EN 1931	MNs/g	0.19



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For further details, prices and technical support, contact your local stockist:



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