

VapR-free

160

High Performance Vapour Permeable Pitched Roof Underlay



KEY FEATURES



High Vapour Permeability



Highly Water Resistant



Durable



Versatile

PRODUCT SPECIFICATION

Roll Width (m)	1.0	1.5
Roll Length (m)	50	50
Coverage/Roll (m ²)	50	75
Roll Weight (kgs)	8.1	12.15
Rolls/Pallet	36	36

VapR-free 160 is a multi layer laminate film composite made of polyolefin materials, resulting in a pitched roof underlay that has high vapour permeability, but is also highly water resistant.

VapR-free 160 is suitable for warm and cold pitched roofs in both commercial and domestic buildings.

Manufactured without the use of CFCs, **VapR-free 160** is 100% recyclable and is extremely durable with high tensile and nail tear strength properties. These, coupled with excellent UV and heat stability properties will ensure that **VapR-free 160** has a life span in excess of 30 years.

VapR-free 160 roof underlay has received BBA approval and complies with BS 5534:2014+A2:2018 Code of Practice for the slating and tiling of pitched roofs.

Recommendations for the use of vapour permeable membranes in pitched roofs are contained in BS 5250:2011.

BRE Approved

VapR-free 160 has been approved and tested in accordance with BS 5534: Wind Uplift Resistance and is suitable for use in:

Wind Zones 1-2 with a Battened Lap

Wind Zones 1-5 with a Taped Lap

Wind Zones 1-5 with an Integral Taped Lap



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INSTALLATION

Cold Pitched Roofs

When installed as a partially supported system, **VapR-free 160** should be fixed in the traditional method for roof tile underlays, laid parallel to the eaves and draped between the rafters. This will ensure that any moisture reaching the underlay drains away. It is held in place by the tile battens and fixed using staples or large headed nails.

VapR-free 160 can also be installed by pulling it taut from gable to gable, provided that a 25mm counter-batten is fixed to each rafter.

Warm Pitched Roofs

VapR-free 160 can be laid vertically or parallel to the eaves, when fully supported by the insulation, and held in place using counter-battens (minimum height of 25mm). These, in conjunction with the 25mm tile battens will ensure a minimum 50mm clear airway above the underlay, and will assist natural air movement through the batten space. The battens should be fixed in place using staples or large headed nails.

Prevention of Condensation

The complete roof construction, ceiling boards, underlay, insulation and roof tiles should be considered as a total roof system with regards to condensation risk. Details of this can be found in our BBA certification. The risk of condensation is greatest during the first heating period, when moisture levels are high.

Roof Space Ventilation

The NHBC requires that all new-build homes, ridge or high-level ventilation is installed when a vapour permeable membrane such as **VapR-free 160** is used. We recommend the membrane should stop 5 - 30mm from the apex of the roof, and a ventilated dry ridge system be used to achieve the required level of ventilation.

General

VapR-free 160 must be installed with the printed side face up and overlapped according to the minimum stated dimensions, as detailed opposite. Trimming is achieved using a sharp knife. When partially supported by a horizontal lap between the battens, an extra batten should be introduced 25mm from the bottom edge. This will restrain the lap from opening under wind uplift.

Weather Tightness

VapR-free 160 is highly water resistant and prevents the ingress of wind-driven rain. It can be used as a temporary roof covering, however, the period of exposure should be kept to a minimum. Installation should be as recommended in our technical leaflet with regards to overlaps, fixings, draped between rafters or counter-battens, and direct contact with uncured treated timber should be avoided.

Eaves

Mercury Building Products strongly recommends the use of an eaves carrier in both open and closed eave construction.

Packaging and Storage

VapR-free 160 is wrapped in polythene and delivered on a pallet. Individual rolls should be stored on their sides on a clean, dry and flat surface and protected from direct sunlight.

TECHNICAL DATA

Property	Units	Value
Weight	g/m ²	162
Water Vapour Resistance	Sd (M) MN/sg	c.0.02 0.18
Water Vapour Transmission	g/m ² /24 hr	1112
Fire Rating	Class	E
UV Degradation Exposure Times	-	3 months

MINIMUM OVERLAP DETAIL

	Horizontal Laps		Vertical Laps
Roof Pitch	Partially Supported	Fully Supported	Either
12.5° to 14°	225	150	100
15° to 34°	150	100	100
35°	100	75	100

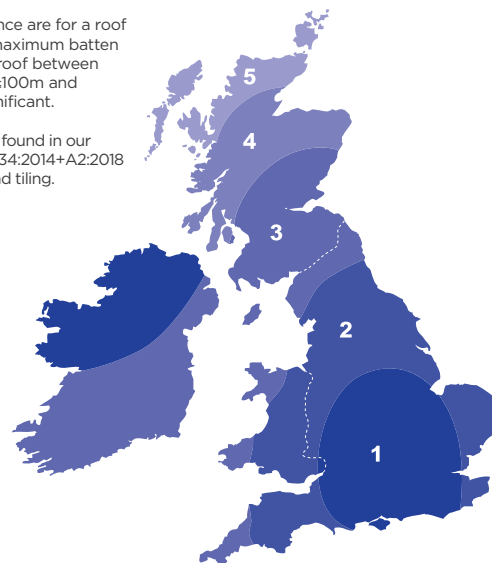
Detail	Minimum Overlap Detail Horizontally and Vertically (mm)
Dry Verges	As per manufacturer's fixings details
Hips	150
Non Ventilated Ridge	150
Ventilated Ridge	As per manufacturer's fixing details
Valleys	300
Eaves	As per manufacturer's fixing details

BS 5534: WIND UPLIFT RESISTANCE

VapR-free 160 Tested Wind Uplift Resistance (N/m ²)	Approved use Geographical Wind Zone
345mm Batten gauge Battened lap Exceeds 1150	1-2
250mm Batten gauge Battened lap Exceeds 1600	1-5
345mm Batten gauge Taped lap Exceeds 1600	1-5
345mm Batten gauge Integral Taped lap Exceeds 1600	1-5

These values of uplift resistance are for a roof with a ridge height ≤15m, a maximum batten gauge of 345mm, a pitched roof between 12.5° and 75°, a site altitude ≤100m and where topography is not significant.

Full details of BS 5534 can be found in our BBA certificate and the BS 5534:2014+A2:2018 Code of Practice for slating and tiling.



TECHNICAL SALES SUPPORT

For further information please call our Technical and Sales Support Service Department on 01246 268084 or email orders@mercurybuildingproducts.co.uk