

# VapR-free

## Vapour Permeable Roof Tile Underlay



### Key Features

- ◆ **Waterproof** VapR-free 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.
- ◆ **Breathable**
- ◆ **Versatile** Suitable for Commercial and Domestic buildings, it is the ideal roof underlay for both Tiled or Slated, Warm and Cold Pitched Roofs.
- ◆ **Eliminates Ventilation** VapR-free can be installed without the need for roof space ventilation, reducing air leakage by 75% thus resulting in energy savings of up to 25%. An additional benefit is the reduced risk of condensation due to blocked ventilation and the elimination of cost for ventilation accessories.
- ◆ **Energy Saving**
- ◆ **Lightweight** VapR-free is available in clean, light and user friendly **45m<sup>2</sup> rolls** that reduce wastage.
- ◆ **User Friendly**
- ◆ **Re-cyclable** Manufactured without the use of CFC's VapR-free is 100% recyclable and is very durable with high tensile and nail tear strength properties. These, coupled with excellent UV and heat stability properties ensure a life-span in excess of 30 years.
- ◆ **Durable**

### Quality Assurance

VapR-free membrane has received BBA Approval for use in Non Ventilated and Ventilated warm and cold pitched roofs and complies with BS5534-11997 Code of Practice for slating and tiling and NFRCTB6.

Recommendations for the use of vapour permeable membranes in pitched roofs are contained in BS 5250 : 2002 'Code of practice for control of condensation in buildings'. The Code advises that a pitched roof underlay should be water vapour permeable with a vapour resistance of not more than 0.25 MN/sg. This figure can also be expressed as water vapour transmission with a figure not less than 820 g/m<sup>2</sup>/24 hrs. VapR-free easily qualifies on both counts – see Technical Data overleaf.



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## Installation Guide

### Non-Ventilated Cold Pitched Roofs (partially supported)

**VapR-free** when installed as a partially supported system should be fixed in the traditional method for roof tile underlays. Laid parallel to the eaves and **draped between the rafters** to ensure that any moisture reaching the underlay will drain away. It is held in place by the tile battens, fixed using staples or large headed nails. In extreme cases of air tightness with slates or tiles a counter batten should be considered to ensure sufficient ventilation above the underlay. **VapR-free** can also be installed by pulling taut from gable to gable providing a 25mm counter batten is fixed to each rafter.

### Prevention of Condensation

The complete roof construction, ceiling boards, underlay, insulation and roof tiles should be considered as a total roof system with regard to condensation risk. Insulation at ceiling level should be pressed tightly into the eaves against the underlay and all penetrations into, and out of, the roof space should be sealed.

**\*Additional ventilation at the eaves or ridge is not required.**

### Non-Ventilated Warm Pitched Roofs (fully supported)

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

**\*Additional ventilation at the eaves or ridge is not required.**

## General

**VapR-free** must be installed with the (Grey) Printed side, face-up and overlapped with the minimum dimensions listed. Trimming is achieved with a sharp knife. When partially supported with a horizontal lap between battens an extra batten should be introduced 25mm above the bottom edge. This will restrain the lap from opening under wind uplift.

**VapR-free** prevents the ingress of wind driven rain and can be used as a temporary roof covering and left exposed to the elements. However it must be installed as recommended in our technical leaflet with regards to overlaps, fixings, draped between rafters or counter-battened and direct contact with uncured treated timber avoided.

## Eaves

Mercury Building Products recommend the use of **VapR-free Underlay Support Trays** in both open and closed eave construction. Details of this unique versatile product can be obtained directly from Mercury Building Products or from one of our stockists.

## Technical Data

Property	Units	Value
Weight	g/m <sup>2</sup>	112
Water Vapour Resistance	Sd (M) MN/sg	c.0.02 0.18
Water Vapour Transmission	g/m <sup>2</sup> /24 hr	1151
Fire Rating	-	B2*
Exposure Times UV Degradation	-	3/4 months

## Product Data

Roll Width (linear metres)	<b>1.5</b>	<b>1.0</b>
Roll Length “	30	45
Coverage/roll	45m <sup>2</sup>	45m <sup>2</sup>
Roll weight	5 kgs	5 kgs
Rolls/Pallet	56	54

## Technical and Sales Support

**For more detailed information please refer to our Technical Data Sheet, BBA Certificate or simply contact Mercury Building Products Limited (01246 292816) who offer a full Technical and Sales Support Service to Specifiers and Contractors.**

## Packaging and Storage

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

## Minimum Overlap Detail

Roof Pitch	Horizontal laps		Vertical Laps
	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	
	Horizontally and Vertically (mm)	
Verge	25	
Hips	150	
Ridge	150	
Valleys	300	
Eaves	25	

