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Monarperm[®] Breathe Two

Pitched Roofing Systems

Description

Monarperm Breathe Two is manufactured by laminating a polymer film between two polypropylene fabric layers to form a breathable yet air tight waterproof membrane. The membrane is produced with a white underside and a blue upper surface printed with overlap guidelines and the product name.

Standard

Monarperm Breathe Two has been independently site and laboratory tested by the British Board of Agrément, and awarded BBA certificate number 02/3932.



Intended Use

Monarperm Breathe Two is a vapour permeable membrane intended as an underlay for discontinuous roofing for use in application on pitched roofs over rafters in ventilated and non-ventilated roof constructions. It is used to reduce wind load on slates and tiles and to provide a secondary water-shedding layer against wind-driven rain or snow and has been designed specifically to meet the performance requirements for a pitched roof underlay. The product is also suitable as an underlay in vertical applications behind weatherboarding and rain screen cladding.

Watertightness

Monarperm Breathe Two resists the penetration of liquid water when subjected to a hydrostatic head of water of more than five metres and consequently, may be used as temporary weatherproofing prior to the installation of slates or tiles.

The membrane is UV stabilised and may be left uncovered for periods of up to three months, however the product's exposure to the weather should be considered; especially during winter months when the membrane may become damaged by prolonged periods of strong wind and/or persistent heavy rainfall. In these circumstances, the exposure period should be reduced. It is recommended that the membrane is covered as soon as possible.

The use of a sacrificial temporary roof covering should therefore be considered if prolonged periods of exposure are expected.

Due to nature of installation a pitched roof underlay is not a complete waterproof barrier and some rain penetration may occur.

Properties

Roll Size	1.0 m x 50 m; 1.5 m x 50 m
Colour	Upper: Blue; Lower: White
Thickness	0.5 mm
Weight/Unit area	115 gm ⁻²
Equivalent air thickness	S _d = 0.02 m
Watertightness	Pass (Class W1)

Compatibility

Monarperm Breathe membranes are compatible with most materials normally used within roof substructures and finishes. It may be cut and applied using techniques described in the current BS 5534: 2014 Slating and tiling for pitched roofs and vertical cladding code of practice. There are no harmful side effects associated with the material. Monarperm is not suitable for use with solvent based timber treatments.

UV Resistance

Monarperm Breathe membranes are resistant to ultra-violet (UV) light degradation, but are not designed to be left exposed for long periods and must be covered as soon as possible.

Durability

Monarperm Breathe Two is designed to have a serviceable life equal to the primary roof covering performance.

Strength

Monarperm Breathe membranes combine excellent tensile strength characteristics with high puncture and nail tear resistance.



EN 13859-1
16 EN 13859-2

Ref: IC03362

Monarperm® Breathe One

Pitched Roofing Systems

Installation Details

Monarperm must be installed and fixed in accordance with the manufacturer's instructions and the relevant recommendations of BS 5534: 2014 and BS 8000-6: 2013. Installation can be carried out under all conditions normal to roofing work.

Fully Supported: Monarperm Breathe membranes may be laid directly onto sarking⁽¹⁾ or insulation boards. When installed fully supported, the membrane should be laid taut (but not drum tight). Counter-battens must be used, to allow any surface water to drain freely down to the gutter.

Partially Supported: In partially supported applications, Monarperm Breathe membranes may be laid draped across the rafters without the need for counter-battens. The membrane should be draped to ensure that surface water can drain freely beneath the tiling battens.

(1) As Scottish practice with slates nailed through the breather membrane directly onto timber sarking planks (nominally 150 mm wide with a 2 mm gap) without battens.

Monarperm Breathe Two may be treated as a vapour permeable membrane and installed without the need for ventilation provided that the roof construction remains air tight and convection free. This may be achieved by using a Monarflex vapour-tight and air-tight membrane (AVCL) at ceiling level.

Please consult Icopal Technical Services for further information.

Eaves Protection

Pitched roof underlays are often dressed into the eaves gutter, leaving a strip of the material exposed to the elements and to UV radiation causing degradation or even disintegration of the membrane.

A more durable material for these exposed gutter areas is recommended. Monarflex Eaves Guard is a rigid component designed specifically for this use. It eliminates the need for a tilting fillet and protects Monarperm Breathe Two from prolonged exposure to UV light at eaves.

Quality Assurance

Monarperm Breathe Two is supplied under a Quality Management System approved to ISO 9001: 2008 by BSI Quality Assurance.



QMS: Q5556

Wind Uplift Resistance

The British Standard code of practice BS 5534:2014 annex A requires that pitched roof underlays are assessed with regards to resisting the effects of wind uplift acting on the membrane.

The table below provides the wind uplift resistance data and the zonal classification for the Monarperm Breathe Two.

Batten Spacing	Pressure (Pa)	Zones
<345 mm	1010	1 - 2
<250 mm	2282	1 - 5

The above values are for overlaps made under a batten without the use of a lap tape.

The zonal classifications stated in the above table relate to the required membrane design wind pressures where the following conditions apply: a well-sealed ceiling is installed, where ridge height is not greater than 15 m, where roof pitch is between 12.5 and 70 degrees, where site altitude is not greater than 100 m and where no significant topography is present.

For all other cases, the required uplift resistance should be determined using BS 5534: 2014 and the product's declared wind uplift resistances given in the table.

Underlays tested and suitable for use in Zone 1 at a maximum 250 mm batten spacing are suitable for use in all wind zones when fully supported by sarking boards, plywood or thermal insulation.

Delivery and Storage

Monarperm Breathe Two is delivered to site in rolls individually shrink-wrapped and bearing the manufacturer's name, product description and the BBA identification mark. Rolls must be stored horizontally on a clean dry surface and under cover for protection from the sunlight and any mechanical damage.

Technical Services

Specialist advice and design guidance on all matters relating to Monarperm Breathe Two is freely available from our Technical Department at the address below.

Availability

Item Code	Description	Roll Length
3012820	Monarperm® Breathe Two	50 m x 1.5 m
3012821	Monarperm® Breathe Two	50 m x 1.0 m

NOTE: This information is given in good faith being based on the latest knowledge known to Icopal Limited. Whilst every effort has been made to ensure the contents of the publication are current while going to press, customers are advised that products, techniques and Codes of Practice are under constant review and liable to change without notice. Up to date information is available from our Technical Services Department on request.

Responsibility cannot be accepted for the application of products, and no claims can be considered, where the manufacturer's instructions have not been followed. The user should not assume, based on information provided in this sheet, that the product is suitable for any abnormal use.

All products are sold subject to our standard conditions of sale, available on request.