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Monarperm Reflex

Pitched Roofing Systems

Introduction

Monarperm Reflex is a breathable polypropylene pitched roof underlay, and 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. It furthermore has a reflective upper surface to limit solar gain.

Description

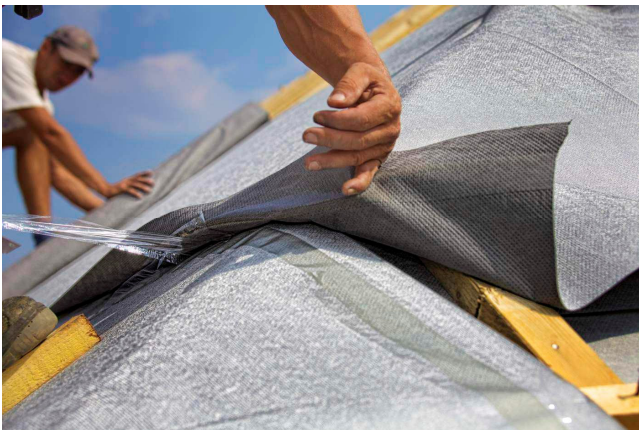
Monarperm Reflex is manufactured by laminating a plastic film between two polypropylene fabric layers to form a breathable waterproof membrane. The membrane is produced with a special aluminium metallised upper surface and a dark grey underside, and printed with overlap guidelines and the product name on the upper surface. The product furthermore has integrated tape in the overlap area in upper and underside to provide a sealed lap.

Intended Use

Monarperm Reflex 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, or as an underlay in walls behind rain screen cladding.

Typical Specification

Pitched roof underlay to be Monarperm Reflex, as manufactured by Icopal Ltd, Barton Dock Road, Stretford, Manchester, M32 0YL. The membrane is to be installed and sealed in accordance with the relevant codes of practice and with the manufacturer's instructions. Laps to be sealed with the pre-applied adhesive tape.



Properties

Roll Size	1.5 m x 50 m
Colour	Silver upper; Grey lower
Weight/Unit area	170 gm-2
Reflectivity	60 %
Emissivity	40 %
Water Vapour Resistance	< 0.18 MNsg-1
Equivalent air thickness	Sd = 0.02 m
Hydrostatic Head of Water	> 4 m

Compatibility

Monarperm breather 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: Part 1 (Slating and Tiling; including shingles). There are no harmful side effects associated with the material. Monarperm is not suitable for use with solvent based timber treatments.

UV Resistance

Monarperm breather 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 breather membranes are designed to have a serviceable life equal to the primary roof covering performance.

Strength

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

Quality Assurance

Monarperm membranes are supplied under a Quality Management System approved to ISO 9001:2000 by BSI Quality Assurance.



QMS: Q5556



EN 13859-1
EN 13859-2

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Installation Details

Monarperm must be installed and fixed in accordance with the manufacturer's instructions and the relevant recommendations of BS 5534-1: 1997 and BS 8000-6:1990. Installation can be carried out under all conditions normal to roofing work.

Fully Supported: Monarperm Reflex may be laid directly onto sarking^(Δ) 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 Reflex 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.

(Δ) 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. Note, that reflective performance will be reduced in this scenario.

Monarperm Reflex 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 at ceiling level.

Please consult Icopal Technical Services for further information.

Weathertightness

Monarperm Reflex resists penetration of liquid water when subjected to hydrostatic head of water in excess of four 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.

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.

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 EavesGuard is a rigid component designed specifically for this use. It can eliminate the need for a tilting fillet and also protects Monarperm Reflex from prolonged exposure to UV light at eaves.

Delivery and Storage

Monarperm Reflex is delivered to site in rolls individually shrink-wrapped and bearing the manufacturer's name, product description and the CE 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 Reflex is freely available from our Technical Department at the address below.

Availability

Item Code	Description	Roll Length
3100483	Monarperm Reflex	1.5 m x 50 m