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Monarflex Monofilament 250

Moisture Control Systems

Introduction

Monofilament 250 is part of the Icopal range of vapour control layers. Icopal is Europe's leading manufacturer of reinforced polyethylene-based membranes for the construction industry and has more than thirty years experience in the design, production and distribution of roofing products.

Monofilament 250 high performance vapour control layer is for use in buildings with low to medium levels of humidity, including bathrooms, kitchens and utility rooms. It is suitable for use on both new and refurbishment projects.

Description

Monofilament 250 is produced from two layers of virgin low density polyethylene (LDPE), with a reinforcing grid of high density polyethylene (HDPE) built-in. The reinforcing grid gives Monofilament 250 exceptional strength, and a very high tear and puncture resistance. The membrane is clear with a black grid. The membrane has 150 mm overlap guidelines printed on its upper surface along both edges.

Intended Use

Monarflex Monofilament 250 is intended for use as a vapour and air tight membrane suitable for use on roofs, walls and under floors. The membrane is unrolled loose and with an overlap of minimum 150 mm and is tape sealed with Monobond butyl sealant tape. Membranes should be installed in accordance with the manufacturer's guidelines.

Jointing

To form joints between adjacent sheets of Monofilament 250, lap the membrane by a minimum of 150mm and seal with a strip of Monobond LT jointing tape.

Monobond LT is a permanently flexible, double-sided sealant tape for making impermeable, waterproof seals at laps in vapour control layers.

See the separate Monobond leaflet for preparation and installation details to other materials and structures.

Procedure

Monofilament 250 Vapour Control layer may be use in lightweight constructions such as low-slope insulated metal roofs and cladding, timber or metal frame walls, and with warm deck single-ply membrane flat roofs, on both new-build and refurbishment projects.

Properties

Roll Size	2.0 m x 50 m 4.0 m x 50 m
Colour	Clear
Thickness	0.25 mm
Weight/Unit Area	250 g·m ⁻²
Water Vapour Resistance	530 MNsg ⁻¹
Water Vapour Permeability	0.4 g·m ⁻² ·24hrs ⁻¹
Equivalent air thickness	S _d = 120 m

Thermal Stability

Monofilament 250 is thermally stable in the temperature range of -40 °C to +80 °C. This ensures the membrane retains its integrity when being installed or used in extreme temperatures.

Durability

Monofilament 250 Vapour Control Layer will be unaffected by the normal conditions found in a roof or wall and will have a service life comparable to other elements of the construction.

Strength

Monofilament 250 can resist the normal stresses associated with the construction and installation. Its reinforcing grid strengthens the membrane reducing the risk of damage during installation.

Maintenance

Monofilament 250 is resistant to tears and punctures. Any mechanical damage which does occur during installation should be repaired with a patch of the membrane fixed in place with continuous strip of Monobond LT sealing tape.

Type A
EN 13984

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Ref: IC00311



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Air Leakage

Air-tight: When properly installed and sealed Monofilament 250, will reduce air movement through the construction, cutting convection heat losses resulting from air infiltration.

Vapour-tight: When properly installed and sealed Monofilament 250 will reduce the transmission of water vapour from the occupied space into the fabric of the roof or wall construction.

By preventing the build-up of moisture within the construction Monofilament 250 will help minimise the risk of interstitial condensation.

Installation

Monofilament 250 reduces air infiltration and prevents water vapour generated within the occupied space entering the roof. Icopal recommends the membrane be fixed to the underside of the rafters, or wall, with battens. The voids formed by the battens enable services to be installed without penetration of the membrane.

A vapour-tight seal must be formed wherever the vapour control layer is penetrated by pipes or ducts.

Monobond LT sealing tape should be used to produce a tight fit and seal around the penetration.

Typical Specification

The vapour control membrane to be Monofilament 250, as manufactured by Icopal Limited, Barton Dock Road, Stretford, Manchester M32 0YL. Tel: 0161 865 4444 Fax: 0161 865. All laps to be sealed with Monobond LT jointing tape. The membrane is to be installed in accordance to the manufacturer's instructions, and the requirements of *BS 5250: 2002: Control of Condensation in Buildings*.

NBS Specification

Monofilament 250 is specified using the following:

Clause: J42/110, P10/310

Product: Monarflex Monofilament 250

Manufacturer: Icopal Ltd. Barton Dock Road, Stretford, Manchester, M32 0YL. Tel: 0161 865 4444.



Quality Assurance

Monofilament 250 membranes are supplied under a Quality Management System approved to *ISO 9001: 2000* by BSI Quality Assurance.



QMS: Q5556

Delivery and Storage

Monofilament 250 is delivered to site in rolls wrapped in polyethylene with a label bearing the product name and data. Rolls should be stored on their side, on a smooth, clean surface, undercover and protected from sunlight.

Technical Services

Specialist advice and design guidance on all matters relating to Monofilament 250 is freely available from our Technical Department at the address below.

Availability

Item Code	Description	Roll Length
3002779	Monofilament 250	2.0 m x 50 m
3002780	Monofilament 250	4.0 m x 50 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.