



PRODUCT DATA SHEET

Monarflex Reflex Super

Reinforced Polyethylene Gas Membrane

Application

Monarflex Reflex Super is part of Icopal's Monarflex gas control systems and may be used loose-laid with ground supported or suspended slabs. It is satisfactory for use as a DPM and when properly sealed and detailed to restrict the ingress of ground gases. Monarflex Reflex Super is recommended for use in situations of medium to high concentrations of radon gas, or where methane and carbon dioxide are present.

Description

Monarflex Reflex Super is a high performance, Six layer membrane manufactured from virgin low-density polyethylene (LDPE) with a polyester reinforcing grid and an aluminium foil layer to give high strength and tear resistance and low permeability to gas. The membrane is coloured sand on the upper surface with a black-coloured underside.

Performance and Properties

Roll Length	25m
Roll Width	2m
Weight	360gm ²
Thickness	0.4mm
Tensile Strength	500N/50mm
Tear Resistance	>350N
Monarflex Extrusion Weld Strength	320N
Monobond Tape Strength	57N
Elongation	15%
Moisture Vapour Transmission	<0.03gm ⁻² 24hr ⁻¹
Water Vapour Resistance	>20520MNsg ⁻¹
Radon Transmittance	<1x10 ⁻⁹ ms ⁻¹
Radon Permeability	<0.4x10 ⁻¹² m ² s ⁻¹
Methane Transmittance	<0.005cm ³ hm ² atm

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Installation Details

Ground Bearing Slabs:

Monarflex Reflex Super may be laid over or under the slab. When laid below slab Monarflex Reflex Super should be placed on top of a gas permeable layer, such as hardcore blinded with sand. When placed above slab, the concrete should be dense, smooth and free from any projections which may damage the membrane. Monarflex Reflex Super should then be covered with a screed or other suitable protective layer.

Suspended Floors:

Monarflex Reflex Super should be laid over the floor slab, which should be free of debris and any projections which may damage the membrane. It should be covered with a screed or other suitable protective layer.

Monarflex Reflex Super should be installed and fixed in accordance with the manufacturer's instructions.

Jointing

Installation of the gas barrier should be carried out by professionals. For welding of the gas membranes on site, Monarflex recommends the Monarflex Extrusion Welding Machine. To form joints between adjacent sheets of Monarflex Reflex Super lap the membrane by a minimum of 150mm. In situations where methane, carbon dioxide or radon is present, the membrane should be extrusion welded at all laps and joints where possible. Consult Monarflex Geomembranes Ltd for advice. Alternatively the seal can be achieved with a strip of 70mm wide Monobond tape.

Penetrations

Where service ducts or pipes penetrate the membrane, gas tight joints are effected using extrusion welding or Monobond tape, along with top hat units with retention clips.

Complex junctions around penetrations such as, steel stanchions and concrete columns may be detailed and sealed by using a fully bonded membrane such as Monarseal self adhesive gas resisting membrane with an overlap of 150mm on each surface.

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Detail work should be completed first. Once completed, Monarflex Reflex Super may be laid and overlapped and sealed in accordance with the manufacturer's recommendations. The membrane should be checked to ensure an effective bond and seal.

Steel, concrete and masonry surfaces should be primed with Xtra-Seal Quick Drying Primer prior to the application of the fully bonded membrane.

Quality Assurance

Monarflex Reflex Super is manufactured under a Quality Management System approved to ISO 9001:2000 by BSI Quality Assurance.

Test Standards & Certificates

Monarflex Reflex Super membrane is manufactured and CE marked according to the EN 13967 standard.

Typical Specification

Monarflex Reflex Super as manufactured by Monarflex Geomembranes Ltd, PO Box 6318, Leighton Buzzard LU7 6AN. The gas membrane is to be installed and sealed in accordance with the manufacturer's instructions.

NBS Specification (available separately)

Monarflex Reflex Super gas and damp-proof membrane is specified using the following:

Clauses: J40

Product: Monarflex Reflex Super membrane

Manufacturer: Monarflex Geomembranes Ltd, PO Box 6318, Leighton Buzzard LU7 6AN.

Tel: 08444 123 175 Fax: 01525 384 477.

Technical Services

Specialist advice and design guidance on all matters relating to Monarflex Reflex Super, including CAD detailing for all gas and damp-proofing requirements, is freely available from our Technical Department at the address below.