

Proofex Radon Barrier



constructive solutions

High performance, gas-impervious, reinforced membrane

Uses

Gas membrane designed to protect buildings and their occupants from the effects of radon, carbon dioxide and other harmful gases. Like conventional ground membranes, Proofex Radon Barrier also acts as a damp-proof membrane to help protect the building against the ingress of moisture from the ground.

Advantages

- Virgin co-polymer product design for maximum gas protection.
- Loose-laid system for ease of application.
- Can be used on ground-bearing concrete floors or on suspended concrete or beam and block floors.

Description

Proofex Radon Barrier is a radon and carbon dioxide impermeable membrane comprising a co-polymer virgin grade LDPE/MDPE blown film.

Building Regulations and Technical Standards require measures to be taken to prevent the build up of harmful gases inside buildings.

Approved Document C to the Building Regulations should be consulted. This document refers to BRE Reports 211 (Radon) and 414 (Housing on gas contaminated sites).

Proofex Radon Barrier offers protection from radon and carbon dioxide when included in schemes designed and installed with reference to the guidance offered by the above documents.

Typical properties

Membrane thickness:	370µm
Weight (DIN53104):	356g/m ²
Roll weights (4m x 20m):	28.48kg
Radon gas transmission rate :	4 x 10 ⁻¹² m ² /s
Moisture vapour transmission:	0.16g/m ² /day
Tear resistance MD:	248N/mm
CD:	303N/mm
Tensile strength MD:	21.5Mpa
CD:	29.4 Mpa
Elongation@ Max Load MD & CD:	>800%
Colour	Yellow

Standard compliances

Independently certified performance, IAB Certificate (No. 03/0177).

Application Instructions

Preparation

Underslab ground membranes

The hard-core bed should be blinded with soft sand and consolidated to provide a smooth bed free of sharp projections.

Overslab ground membranes

The top surface of the concrete slab should be free from ridges, undulations and sharp projections. If this is not the case a sand bed may be necessary to reduce the risk of puncturing the membrane.

Laying

The membrane should be laid neatly and tucked well into angles to prevent bridging. At corners in upstands folded welts should be formed.

Lapping and jointing

Rolls of Proofex Radon Barrier should be lapped by a minimum of 150mm and sealed with a continuous strip of Proofex TOTAL Tape. Ensure that the membrane is clean and dry at the time of jointing. For increased performance, seal the edge of the upper sheet with Proofex Detail Strip or strips of Proofex 3000MR.

Proofex Radon Barrier can also be heat welded by a specialist installer.

Protection

Protect the completed membrane adequately to prevent puncturing using Typar SF56 80g/m² geotextile or Proofex Protection Board. Alternatively, the overlying construction, such as insulation, can be installed prior to pouring of concrete. If used in an overslab situation, unbonded screeds should be at least 50mm thick and laid as soon as possible after completing the membrane to reduce the risk of puncture.

Penetrations

Where possible services should be routed such that they do not pass through the membrane, thus reducing the number of penetrations.

Where penetrations are unavoidable Proofex Top Hats are recommended and should be stuck to membrane using Proofex Total Tape and sealed to pipe with Nitoseal MS50.



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Estimating

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Roll width:	4m
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Roll length:	20m
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Proofex TOTAL Tape

Tape width:	50mm
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Tape length:	30m
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Maintenance

Proofex Radon Barrier is robust and will resist puncture during and after installation providing adequate care is taken to protect the membrane directly after installation. The membrane should be inspected prior to pouring a ground slab or screed and, should any holes or tears be found, these should be repaired using patches of Proofex Radon Barrier taped in place using Proofex TOTAL adhesive tape with at least a 150mm lap beyond the extremity of the puncture.

Storage

Store in original unopened packaging, in cool dry conditions, away from direct sunlight.

Precautions

Health and safety

There are no known health hazards associated with Proofex Radon Barrier in normal use.

Additional information

Ancillary products

Proofex TOTAL Tape
Double-sided butyl tape for sealing of side and end laps and for use in detailing work.

Typar SF56
80 g/m² geotextile as protection for membrane against damage.

Proofex Protection Board
Bitumen impregnated board designed to protect membranes from damage through backfilling and trafficking.

Proofex 3000MR
Methane and water resistant self-adhesive membrane.

Proofex Top Hats
MDPE sheathing, which encapsulates an aluminium foil layer.



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