

High Performance Gas Control Membrane

Description

Toughsheet Radon Barrier is a radon and carbon dioxide impermeable membrane comprising of high quality recycled polythene.

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, Toughsheet Radon Barrier also acts as a damp-proof membrane to help protect the building against the ingress of moisture from the ground.

Advantages

- Loose-laid system for ease of application.
- Can be used on ground-bearing concrete floors or on suspended concrete or beam and block floors.

Maintenance

Toughsheet 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 Toughsheet Radon Barrier taped in place using Toughsheet jointing tape with at least a 150mm lap beyond the extremity of the puncture.

Typical properties

Membrane thickness	300µm
Weight (DIN53104)	315g/m
Roll weight (4m x 25m)	27.6 kg
Radon gas transmission rate (BR212)	0.00
Bursting strength (DIN53141)	500kPa (min)



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Design criteria

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

Toughsheet 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 document.

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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 Toughsheet Radon Barrier should be lapped by a minimum of 150mm and sealed with a continuous strip of Radon Recommended Tape. Ensure that the membrane is clean and dry at the time of jointing.

Protection

Protect the completed membrane adequately to prevent puncturing using 80g/m² geotextile. 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. If puncturing is unavoidable then repairs should take place in a similar fashion described in the maintenance section.

Storage

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



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