

### Solshield Radon Gas Barrier

#### Description:

Solshield Radon Gas Barrier is a multi layered high-quality robust virgin polymer gas barrier and damp-proof membrane (DPM) Designed for use in concrete ground floors, above and below the slab. Radon Gas Barrier has a very high resistance to puncture and is designed to protect the building against moisture and radon from the ground.



#### Compliance:

- NHBC Standards 2020, Chapters 4.1/5.1.
- CE Marking Standard EN13967:2012
- BS 8485:2015+A1:2019
- CP 102:1973, Section 2.
- Damp protection in accordance with Building Regulations Part C
- BRE 211:2023

#### Physical Properties:

- Thickness 0.4 mm
- Width 4 mt
- Length 20mt
- Weight 400 g/m

#### Test Data:

Thickness	400µm / 1600 gauge
Width	4m
Length	20m
Colours	Red
Radon Permeability (10 <sup>-12</sup> m <sup>2</sup> /s)	6
Radon Transmittance (10 <sup>-9</sup> m/s <sup>-1</sup> )	15
Radon Diffusion (K124/02/95)	16 x 10 <sup>-12</sup> m <sup>2</sup> /s
Water Vapour Transmittance (g/m <sup>2</sup> /day)	0.29
Tear Strength (Nail) (N)	>118

Note: Installations for radon gas control should be subject to third-party validation in accordance with BS 8485 :2015

#### Resistance to puncture:

The membrane can be punctured by sharp objects, if their are no sharp objects present on the membrane's surface prior to and during installation of the membrane, the product will not be damaged by foot traffic. A 3mm Solco Protection Board may be used to minimise the risk of puncture to the membrane.

### Installation Procedure:

1. Solshield Radon Gas Barrier must be installed and fixed in accordance of the relevant clauses of BRE Report BR 211 : 2015.
2. The membrane can be installed in all normal site conditions, provided that the air temperature is not below 5°C to prevent the risk of surface condensation.
3. The product must only be applied to surfaces that have a smooth finish, ie they should be free from voids, projections and mortar deposits. Surfaces should be dry and free from dust and frost.
4. Concrete surfaces should be dense. Vertical surfaces of brickwork and blockwork must be dry and rendered to provide an even surface. Brickwork or blockwork not rendered must be flush pointed to give a smooth surface without sudden changes in level.
5. The membrane is rolled out, ensuring that it is properly aligned. All end and side overlaps must be a minimum of 150 mm
6. All joints are bonded with Solco Double-sided Butyl Jointing Tape. Joints are secured with Solco Single-sided foil lap tape.
7. The surface of the membrane to be lapped must be dry and dust free. When using Solco Double-sided Butyl Jointing Tape, the joints must be pressed down and well rolled.
8. All service penetrations and direction changes must be properly detailed. Solco Top Hat Units are available for sealing around pipe entries.
9. The continuity of the gas protection must extend over the footprint of the building, and the gas membrane must be sealed to Solcourse gas-resistant damp-proof course.
10. The membrane should be covered by a screed or other protective layer as soon as possible after installation. If blockwork protection is used, care must be taken to avoid damage to the membrane during construction.

Note: The membrane will, in normal circumstances, remain effective against the ingress of water and water vapour, and will restrict the ingress of radon during the lifetime of the building.

### Repair:

Any damage to the product must be repaired using a patch of the product, and laps welded or sealed with double-sided tape, and secured with the butyl tape. All patched areas must extend a minimum of 100 mm from the damaged area. If required by the local authority, repair work should be confirmed by an independent validation report, as all gas membrane installation should be subject to third-party validation in accordance with BS 8485 : 2015.

### Storage and Handling on Site:

- Solshield Ultra is classified as non-hazardous (code of practice CP102 1973).
- Rolls should be stored on a flat surface, kept under cover, and protected from sunlight and mechanical damage. The product is chemically inert and any acids or alkalis present in the subsoil will not affect the membrane.
- Do not use when exposed to sunlight and general outdoor weather conditions for long periods of time.
- Quality control during the laying of the membrane is extremely important.
- The membrane should be protected either through the use of temporary protection over its whole area or the immediate laying of the concrete slab. Care should be taken when handling building materials over the exposed surface.

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## Solshield VOC Gas Barrier System Accessories

Solco Top Hats	Form an effective seal where a pipe, duct, or service penetrates Solsheet membranes.	Units
Solco S/S Butyl Tape	A double-sided synthetic butyl mastic tape, used for securing joints and laps in DPC's, Cavity trays & pre-formed Cloaks.	Rolls
Solco D/S Butyl Tape	A double-sided synthetic butyl mastic tape, used for securing joints and laps in DPC's, Cavity trays & pre-formed Cloaks.	Rolls
Solco Venting Accessories	Allows the effective venting of gas from beneath a building.	Units
Solco Int / Ext Corners	Preformed units that ensure protection at corners.	Units
Solco GR DPC	A gas resistant tri-polymer damp proof course.	Rolls
Solco Protection Fleece	Forms a protective layer to prevent damage to the membrane.	Rolls
Solsheet GR SAM	A gas resistant self-adhesive membrane.	Rolls
Solseal HP Primer	Used to provide adhesion to bitumen enhanced geomembranes.	Tins
Solshield Venting Mat	Cuspated (HDPE) drainage mat for providing a drainage / venting channel.	Rolls
Solseal Liquid Gas Barrier	A gas resistant liquid applied membrane	Tins