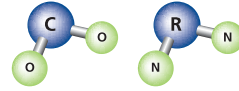


technical datasheet



environmental protection systems

Corden EPS CO₂/Radon Membrane (CO₂) (Rn)



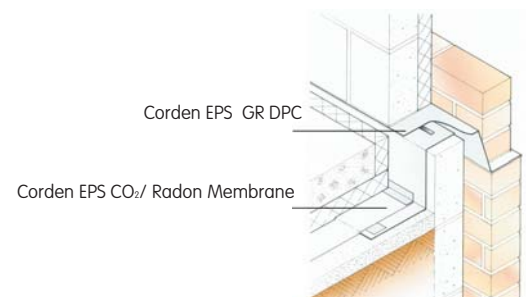
Carbon Dioxide is a colourless, odourless gas formed as a by-product of decomposing organic matter.

It is crucial that when gas protection is required, the site conditions, design and application are all taken into consideration to provide an impermeable membrane, protecting the most valuable asset, "the building" against the gases that can cause future problems.

The acceptable level of Radon which has been regarded as the "safe" threshold until recently has been 200Bq/m³ (Bequerols per cubic metre) however, more recent studies have proven that exposure to radon at levels between 100 and 200Bq/m³ is as hazardous, prompting the following questions by The Health Protection Agency.

The effectiveness of polythene sheeting is being questioned, particularly when it is formed from recycled material.

- Should the industry be considering a more robust, virgin polymer material of greater thickness?
- In known radon affected areas, should the installed protective measures be inspected by Building Control Bodies?
- In known radon affected areas, should a percentage of newly built properties be post inspected?
- Would the use of a Radon Sump eliminate many of the problems caused by membrane failure?



Product Specification

Corden EPS CO₂/Radon Membrane is a blown extruded blend of virgin polymer MDPE and LDPE (co-polymer).

Physical Description	Test method	Value/Units
Thickness		375µ/1500 gauge
Weight		365g/m ²
Colour		Rust red
Standard roll width		4m
Technical Performance		
Elongation at max load	MD & CD	800%
Dart impact strength		1.012kg
Tear Resistance	MD	248N/mm ²
	CD	303N/mm ²
Low temperature flexibility		-5°C
Radon permeability		4x10 ⁻¹² m ² /s
Carbon Dioxide permeability		637cc/m ² .d
Moisture Vapour transmission		0.16g/m ² /day

This blend gives the product immense strength, tear and puncture resistance when compared to ordinary DPM and other radon and CO₂ membranes. Because of its integral strength, it has no need for reinforcement and thus makes it suitable for use as a proprietary gas/damp proof membrane, where resistance to puncture is key.

Corden EPS CO₂/Radon Membrane prevents the transmission of unacceptable levels of harmful gases and due to the nature of its construction, the membrane overcomes problems associated with recycled products, such as imperfections.

Advantages

- Suitable for use on sites contaminated with higher concentrations of CO₂ and Radon
- Extremely tough with excellent resistance to tear and puncture
- Virgin co-polymer. Zero imperfections
- 4 metre wide uni-fold membrane
- Premium DPM/vapour barrier
- Twin wedge or extrusion weld
- Compatible with vented systems

Installation details

Corden EPS CO₂/Radon Membrane should be laid in accordance with the BRE document, Radon: Guidance on Protective Measures for New Dwellings 1999 Edition.

Placing

The Corden EPS CO₂/Radon Membrane should be installed on a blinded or smooth flat surface allowing adequate overlap for jointing.

Jointing

Corden EPS CO₂/Radon membrane should be clean, dry and overlapped by a minimum of 150mm and joined with double sided butyl tape or double sided bitumen tape. The lap that is left as a result of jointing should be sealed down with girth tape to prevent disjoints when pouring concrete.

Pipe penetrations require the use of a "Top Hat connector". A preformed cloak supplied complete with a jubilee clip and sealed with the earlier mentioned tapes.

Corden EPS DPC should be installed in accordance with BUS 8215: 1991, BUS 8000: Part 3, 1989 and BUS 5628: Part 3: 1985. All horizontal DPC's must be bedded on both sides with fresh mortar. All DPC's must project through the full width of the wall, including any externally applied rendering and project 5mm beyond the finished external face.

Venting

Open voids beneath the ground floor with cross ventilation through the external walls may be required. Corden EPS Geocomposite void former or block and beam suspended floors supported on load bearing walls will dilute and disperse gases.

Please contact the Corden Technical Support Team for more information. The use of a Radon Sump in domestic applications can eliminate problems caused by membrane failure.

Technical Support

Due to the wide variety of contaminants found, we strongly recommend the use of the Corden EPS Building Products Technical Support Team at an early design stage, so that the most appropriate detailing and material specification are adopted.

Ancillary Products

- Corden EPS Gas tape
- Corden EPS Lap tape
- Corden EPS Top Hats
- Corden EPS Radon Sumps
- Corden EPS GRM

Separate data sheets available on request for all the above ancillary products.

Manufacture

The manufacturer is certified to ISO 9001: Q A International Certification Limited (Registration No QAICL/UK/BRC/250)

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