

### Corden EPS 2000

A low permeability, highly robust, monolithic, thermoplastic LDPE membrane for use as a radon, carbon dioxide and methane barrier for NHBC Amber 1 situations.

Corden EPS 2000 prevents the transmission of harmful gases. Due to the nature of its construction; the membrane overcomes problems associated with membranes manufactured from post-consumer recycled waste.

Corden EPS 2000 also acts as a damp proof membrane and can be heat welded.

Corden EPS 2000 fully complies with the recommendations of the Building Research Establishment Document: 414 and with the requirements NHBC Guidance on methane and carbon dioxide report issue 20 for Amber 1 sites.

### Advantages

- Suitable for use on sites contaminated with higher concentrations of Radon.
- 4 metre wide centre-fold membrane
- Premium DPM/vapour barrier
- Extremely tough with excellent resistance to tear and puncture.
- Compatible with vented systems
- Conforms to the requirements of BR211

### **Product Specification**

Method	Test Unit	Mean Results
	Roll size	4m x 12.5m
	Thickness	500mu
	Density (Kg/m2)	920
	Colour	Grey
	<b>T (1) (4)</b>	
MOAT 27 5.1 BS 2782 (360B)	Tear strength – Nail tear (N)	Long' Trans 215 185
BS 2782 (320) (12)	Elongation at break (%)	Long' Trans 500 525
MOAT 27 5.1.6.1	Dimensional stability (%) (4) at 80°C 72 hours	Long' Trans +0.17 0.37
MOAT 27 5.4.2	Low temperature flexibility (5) 20mm dia mandrel (-27°C)	Long'Trans No cracking
WVTR (g/m2/day)	Resistance to water vapour	0.24
Radon Permeability		4 x 10 <sup>-12</sup> m <sup>2</sup> /s
CO <sup>2</sup> Transmittance		26.53cc/m <sup>2</sup> hr
Methane Transmittance		6.43cc/m²/hr
MVTR		0.16g/m²/day

### References

BR211 "Radon - Guidance on protective measures for new buildings"

BRE414 "Protective measures for housing on gas-contaminated land"

CIRA C735 2014 Good practice on the testing and verification of protection systems for buildings against hazardous ground gases.

BS8485: 2015 Code of Practice for the Characterization and Remediation from Ground Gas in Affected Developments

NHBC "Guidance on methane and carbon dioxide" and technical extra April 2016, issue 20.

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# **Corden EPS 2000** Radon, carbon dioxide and low level methane for NHBC Amber 1 situations

# NHBC expectations for verification to satisfy the Traffic Light gas regime classifications are as detailed in below. Table 1: Typical NHBC expectations and verification requirements

Gas regime	Minimum gas protection expectations	Verification or information requirements
Green	N/A – but need to comply with BR211 radon requirements, where applicable	
Amber 1	Ventilation – subfloor venting to achieve at least one air exchange per day (minimum 150mm void height; 1500mm2/m air vent opening or 500mm2/m2 floor area spaced at not more than 2m centres on at least two opposing sides).Construction drawings – showing position of membrane; sealing details and ventilation points to be provided.Membrane – must be suitable for purpose. Membrane installation/design - to achieve complete integrity across entire building footprint. Penetrations and joints sealed.Construction drawings – showing position of membrane; sealing details and ventilation points to be provided. Membrane specification – technical data sheet(s) for gas membrane (including gas permeability data) to be provided. Installation – photographic evidence of installed membrane may be requested.	

Note: Corden EPS 2000 is not suitable for "Amber 2" situations. See Corden EPS Total Gas Barrier for guidance.

# **Ancillary Products**

- CORDEN EPS Gas and Lap Tape
- CORDEN EPS GRM Self-adhesive Gas Barrier
- CORDEN EPS Geo-Vent + venting components
- CORDEN EPS Liquid Vapour Membrane
- CORDEN EPS Top Hat Pipe Cloaks
- CORDEN EPS GR DPC. (Gas resistant DPC)
- CORDENEPS Radon Sump
- CORDEN EPS Pre-formed Cloaks, Internal / external corners, Door threshold cloaks, Party wall tray.

# Corden EPS Can Offer:

- Design solutions offering the most cost effective system to comply with current legislation.
- Independent Integrity testing (site based)
- Independent Verification reports (site based)
- Bespoke systems to overcome difficult situations
- Supply and install service with on-site fabrication/welding



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#### cordeneps environmental protection systems