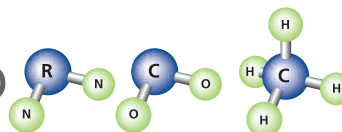


# technical datasheet

**cordeneps**  
environmental protection systems

## CORDENEPS Total Gas Barrier (Rn) (CO<sub>2</sub>) (CH<sub>4</sub>)



**CORDENEPS** Total Gas Barrier is a high quality, virgin polymer, reinforced, multi laminate membrane with an aluminium core.

**CORDENEPS** Total Gas Barrier can be used as a hydrocarbon gas barrier in certain situations.

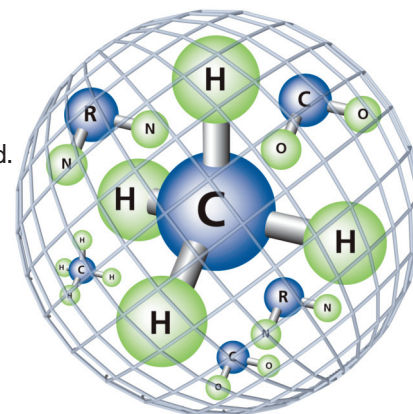
The product is used as part of a full Radon/Carbon Dioxide/Methane (CS3/Amber 2) gas protection system and will meet all current legislation as listed below.

**CORDENEPS** Total Gas Barrier prevents the transmission of harmful gases and due to the nature of it's construction, the membrane overcomes problems associated with membranes manufactured from post-consumer recycled waste.

**CORDENEPS** Total Gas Barrier also acts as a damp proof membrane and can be welded.

Under new legislation, requirements may include:

- Independent verification supported with photographic documentation.
- Integrity testing in certain gas regimes. i.e upper levels of CS3/Amber 2.
- Quality assurance measures to be applied as per watchpoints in BRE 211/414
- The use of proprietary membranes (independently tested) with robust jointing.
- The use of pre-formed corner, threshold and pipe cloaks.



## Product Specification

Property		Standard	Unit	Min	Target	Max
Colour		Yellow/Silver	-	-	-	-
Length		EN 1848-2	m	as ordered (-0%)		
Width		EN 1848-2	m	as ordered (-0.5% / +1%)		
Thickness		EN 1849-2	mm	0.5	0.6	0.7
Basis Weight		EN 1849-2	g/m <sup>2</sup>	330	350	380
Tensile Strength	MD	EN 12311-1	N/50mm	500	600	700
	CD	EN 12311-1	N/50mm	380	480	580
Elongation	MD	EN 12311-1	N	10	20	30
	CD	EN 12311-1	N	10	20	30
Nail tear Resistance	MD	EN 12310-1	%	270	330	400
	CD	EN 12310-1	%	330	400	500
Water Column		EN 20811	cm	>300		
Resistance to water penetration		EN 13967 / EN 1928	-	Pass		
Durability of Watertightness		EN1296	-	Pass		
Against Ageing		EN 1928 / EN 13967				
Resistance to Static Loading		EN 12730, Method B	kg	20		
Permeability Coefficient Q		DIN 53380-2	m <sup>2</sup> .Pa <sup>-1</sup> .s <sup>-1</sup>	1.56 x 10 <sup>-19</sup>		
Gas Transmission Rate G		DIN 53380-2	[cm <sup>3</sup> .m <sup>-2</sup> .Mpa <sup>-1</sup> .d <sup>-1</sup>	41.3		
Methane Permeability at 1 atm		ASTM D1434 method V	m <sup>3</sup> /m <sup>2</sup> /den	1.87 x 10 <sup>-5</sup>		
Methane Permeability		ASTM D1434 method V	cm <sup>2</sup> /sec-atm	7.10 x 10 <sup>-10</sup>		

The performance of gas membranes is heavily dependent on the quality and design of the installation, resistance to damage after installation and the integrity of the joints (BS 8485)

## Advantages

- Suitable for use as a proprietary gas barrier in Amber 2 and CS3 situation
- 2m wide single-wound membrane
- Extremely tough and resistant to tear and puncture
- Can be used as hydrocarbon vapour barrier in certain situations

## Installation Details

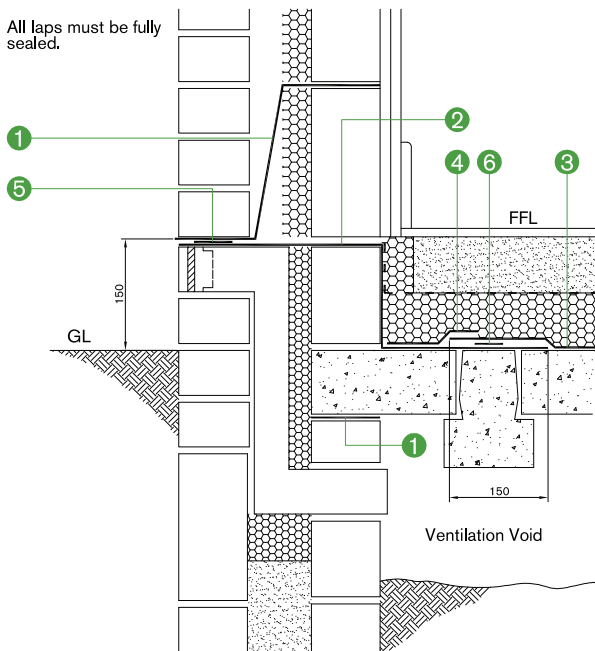
**CORDENEPS** Gas Protection systems should be installed in accordance with current guidance including BRE 211/414, CIRIA C665 & BS8485 and should provide a complete system to cover the whole footprint of the building. The membrane should be laid on a smooth or sand blinded surface free from voids/hollows and objects which may damage the membrane. **CORDENEPS** membrane should be jointed with **CORDENEPS** Double sided Gas Tape with 150mm overlap and then sealed down with a **CORDENEPS** Lap Tape. The membrane should be clean, dust-free and dry. **CORDENEPS** Gas Membranes should provide continuity through walls by sealing and jointing to the DPC/cavity tray formed with **CORDENEPS** GR DPC. Preformed details including internal/external corner units, top hat units, partition wall tray units and door reveal cloaks are available to complement the DPC providing added integrity to the system. Damaged or punctured areas should be patch repaired utilising the above method for jointing. Depending on subsequent covering, protection may be required to protect the system from puncture. Should integrity testing or a validation report be required, this should be factored in prior to the concrete/screed pour.

## Ancillary Products

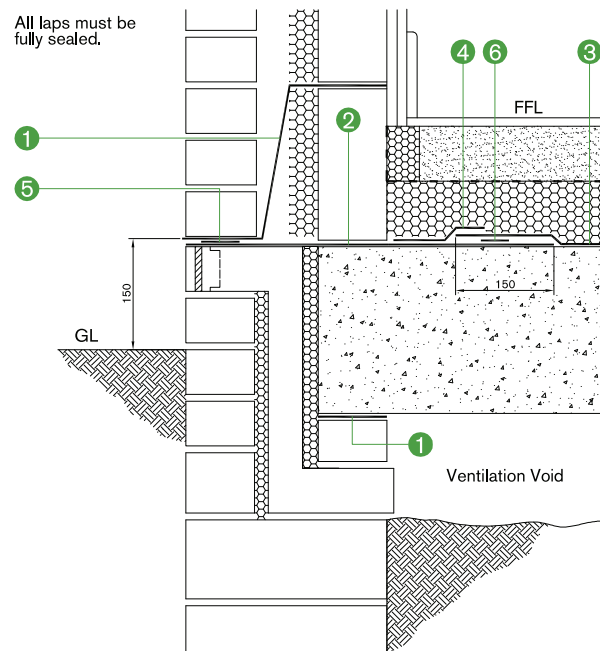
- **CORDENEPS** Jointing system. Gas and Lap Tape
- **CORDENEPS** GRM. Self adhesive gas barrier
- **CORDENEPS** Geo-Vent + venting components
- **CORDENEPS** Liquid Vapour Membrane
- **CORDENEPS** Top Hat Pipe Cloaks
- **CORDENEPS** GR DPC. Gas resistant DPC
- **CORDENEPS** Radon Sump.
- **CORDENEPS** Pre-formed Cloaks. Internal/external corners. Door threshold cloaks. Party wall tray.

See separate data sheet for more information.

## Typical Details



- 1) **CORDENEPS** GR DPC
- 2) **CORDENEPS** GR DPC
- 3) **CORDENEPS** Gas membrane to specification
- 4) **CORDENEPS** Lap Tape
- 5) **CORDENEPS** Gas Tape to specification
- 6) **CORDENEPS** Gas Tape to specification



- 1) **CORDENEPS** GR DPC
- 2) **CORDENEPS** GR DPC
- 3) **CORDENEPS** Gas membrane to specification
- 4) **CORDENEPS** Lap Tape
- 5) **CORDENEPS** Gas Tape to specification
- 6) **CORDENEPS** Gas Tape to specification

## Typical Details

To ensure that the specified system is capable of meeting the functional requirement of the application and current legislation and guidelines, **CORDENEPS** offer project specific technical support through our team of experienced office and field based operatives.

### **CORDENEPS** can offer;

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

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