CE nssPlus

CI/SfB | | | Tn6 | L14143

March 2021

RIW GAS SEAL HC

Gas Seal HC is a 0.5mm thick, unique blended polyethylene membrane, for use where protection against ground gas and hydrocarbons are required.

BENEFITS

- Hydrocarbon, methane, carbon dioxide, radon and VOC barrier
- Manufactured from virgin material, not recycled waste
- Separate damp proof membrane not required
- Robust jointing and sealing system
- High puncture resistance
- Welded joints possible
- Complies with latest codes of practice as published by CIRIA and BRE
- Compliant with BS 8485: 2015

APPLICATIONS

- Combined ground floor damp proof membrane and hydrocarbon/gas barrier

APPLIED TO

- Sand blinding
- Concrete blinding
- Suspended floors
- Ground bearing slabs

REMEMBER IT'S waterproof RIW

RIW GAS SEAL HC

TYPICAL USES

Gas Seal HC is typically used as a polyethylene gas barrier and damp proof membrane in concrete floors below the slab.

The installed product protects the structure against moisture, hydrocarbons and VOC contaminents, as well as methane, carbon dioxide and radon gases from the ground.

DURABILITY

Subject to normal conditions of use Gas Seal HC will remain effective against the ingress of water, water vapour and hydrocarbons, and will restrict the ingress of radon, methane and carbon dioxide during the lifetime of the building.

Where protection from hydrocarbons are required, laps in the product should be welded throughout.

SPECIFICATION

J40 Flexible sheet waterproofing / damp proofing
Clause 140 Loose laid polyethylene gas retardant damp proofing.
Clause 145 Loose laid weldable polyethylene gas retardant damp proofing.
Please consult RIW for further information.

INDEPENDENT AUTHORITY

CE Marked to BS EN 13967. For Declaration of Performance see:

http://www.riw.co.uk/technical-downloads/ce-marking

PERFORMANCE & COMPOSITION

Form	Loose laid sheet
Colour	Black
Overall thickness	0.5mm
Roll size	2.0m wide x 50m long
Weight	50.0kg/roll
Laps	150mm or welded
Tensile Strength EN 12311-1: MD CMD	 >550 N/50mm^2 >400 N/50mm^2
Tensile Elongation EN 12311-1: MD CMD	 400% 400%
Resistance to tearing (nail shank) EN 12310-1 MD CD	 >300N >400N
Water Vapour Transmission Rate BS EN 1931	0.14 g/m2/day
Radon permeability K124/02/95	3.0 x 10^{-12} m^2. s
Methane gas permeability BS EN ISO 15105-1	0.13ml/m^2/day/atm
Carbon dioxide permeability BS EN ISO 15105-1	3.01ml/m^2/day/atm

The above performance figures are typical values and should not be considered a product specification.

ANCILLARY PRODUCTS

RIW produce a range of ancillary products for use with Gas Seal HC which include:
Gas Seal Tape HC - self-adhesive butyl tape for sealing between overlaps in the membrane.
Lap Tape - self-adhesive PVC tape for sealing edges of lapped product.
Preformed pipe collars - flexible collar for sealing around pipe penetrations.
Preformed Gas cloaks - standard or bespoke cloak units to facilitate membrane application.
Gas Seal GR DPC - gas resistant damp proof course/cavity tray for building into masonry.
Geo-vent - cuspated HDPE venting geo-composite incorporating geotextile to one side.
Geo-vent T Connector - end connector incorporating 25mm slot for Geo-vent.
Peri-vent sets - periscopic vent complete with airbrick and Geo-vent adaptor.
Venting bollards and ground level vent boxes are also available.

CONSTRUCTION

GENERAL

All construction should conform with the Building Regulations, Codes of Practice and British Standards in current use at the time the building is being constructed.

Wherever possible, services should enter the building above slab level to avoid penetrating the gas-resistant membrane. However, the water service and soil vent pipes will usually be required to enter the building through the slab and membrane.

PREPARATION

The membrane should be laid on a smooth surface, free from voids, hollows and objects which may damage the membrane. If used below a ground bearing slab, the product may be laid on a sand blinding.

APPLICATION

The completed gas proofing system must cover the entire footprint of the building.

Gas Seal HC should be unrolled onto the prepared surface, and be smoothed out if necessary.

Subsequent rolls should then be lapped onto the previous roll by 150mm, and be sealed using Gas Seal Tape HC placed centrally in the lap. Lap Tape should then be laid over the edge of the upper sheet, by 50mm, and be adhered down onto the lower sheet.

Alternatively, the product may be welded to provide a continuous sheet barrier.

Pipe penetrations should be sealed using Preformed Pipe Collars; sealed to the membrane, and pipe using Gas Seal Tape HC and Lap Tape ; see Pipe Penetration Detail.

Gas Seal GR DPC should be used be used to provide continuity through the walls, with Gas Seal HC lapped and sealed onto it using Gas Seal Tape HC and Lap Tape as before.

Damaged areas should be patch repaired as necessary, using similar lapping / sealing details.

Gas Seal HC will achieve 2 points according to BS8485: 2015 when installed by qualified specialists and independently validated.

SPECIFIC USES

Gas Seal HC should be installed with the ancillary products required, in accordance with current guidance for gas protection systems; including BRE211 / 414, CIRIA C665 & BS 8485.

SAFETY

Full health and safety instructions are contained on the product material safety data sheets, and these must be referred to before use.

SUPPLY

AVAILABILITY

All products can be obtained through Builders Merchants or approved stockists. A list of approved stockists is available from RIW's offices.

PACKAGING

Gas Seal HC	2.0m wide x 50m long roll

STORAGE

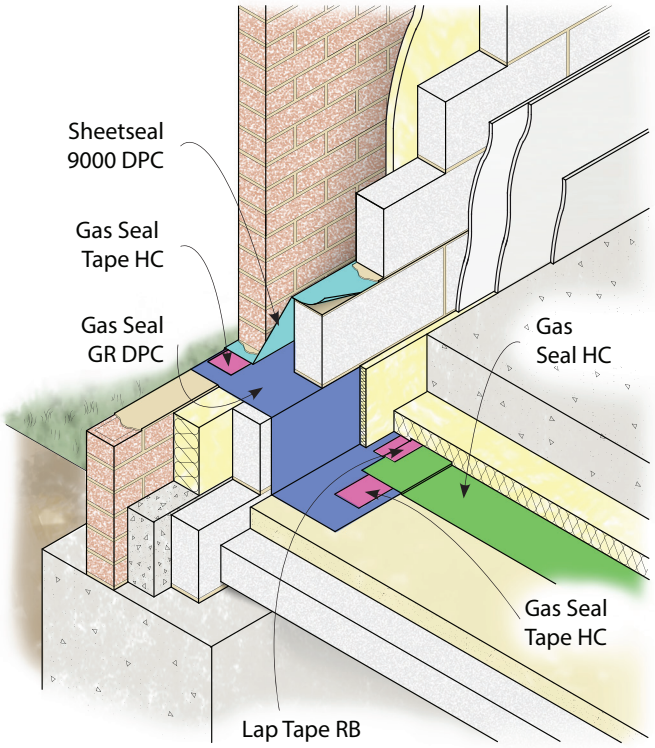
The rolls must be stacked on a flat surface, kept under cover and protected from sunlight and mechanical damage.

TECHNICAL SERVICES

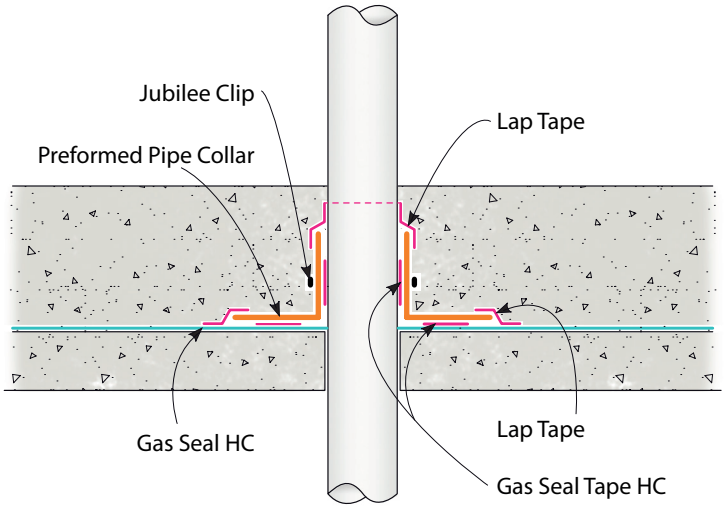
The Technical Department is available to advise on individual projects and to prepare or assist in the preparation of specifications and drawings. We can also offer design guidance to satisfy the requirements of BS8485 and CIRIA C735.

COMPATIBILITY TABLE

	BRE 211 Radon	CIRIA 665 Characteristic Situation 2	BS8485 Characteristic Situation 2	CIRIA 665 Characteristic Situation 3-6	BS8485 Characteristic Situation 3-6	NHBC Amber 1	NHBC Amber 2 & Red
Radon	YES	n/a	n/a	n/a	n/a	n/a	n/a
Carbon Dioxide	n/a	YES	YES	YES	YES	YES	YES
Methane	n/a	YES	YES	YES	YES	YES	YES
Hydrocarbon Vapour	n/a	YES	YES	YES	YES	YES	YES
Hydrocarbon Substances	n/a	YES	YES	YES	YES	YES	YES



Typical Ground Bearing Slab



Pipe Penetration Detail

Must be through main membrane and not coincide with joints.

RIW Limited
487-488 Ipswich Road, Slough, SL1 4EP
Technical enquires tel: **01753 944200**
Commercial enquires tel: **01753 944210**
www.riw.co.uk

REMEMBER IT'S waterproof RIW