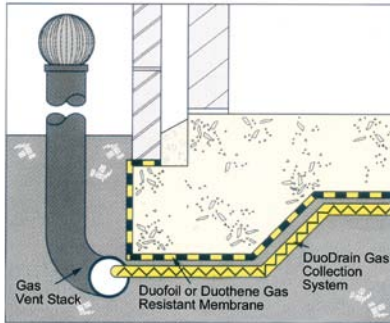


# Gas Barrier

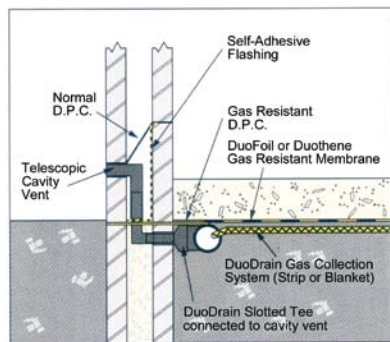
## Gas membrane and venting systems

Geosynthetics Ltd - geosyn.co.uk - Tel 01455 617139

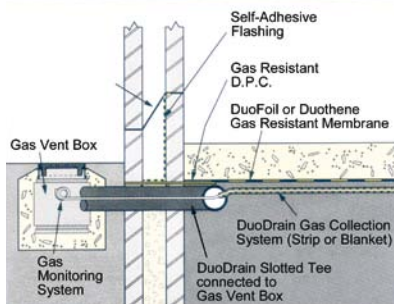
### Vent stack



### Telescopic cavity vent



### Gas box

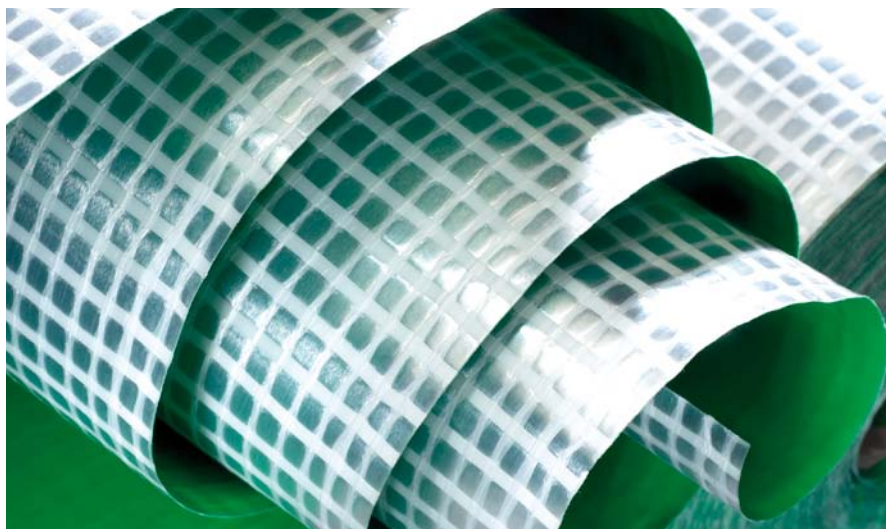


Environmental legislation draws attention to the potential hazard of soil based gases migrating into buildings. In particular brownfield sites and developments within proximity of landfill sites are more exposed to this risk.

Methane, Carbon Dioxide and Radon are all gases that could result in high risks to building occupants, therefore preventative measures should be put in place to stop gas migrating into the building / structure.

Geosynthetics Limited provides a number of solutions to deal with these problems from simple gas barriers to full passive and active venting and membrane systems.

The selection of the correct system is determined by the gas regime, venting requirements and building design. This requires specialist knowledge to ensure the appropriate system is designed correctly. Geosynthetics in conjunction with a leading environmental consultant provide a full package solution from detail design through to installation of the selected system.



# Gas Barrier

## Gas dispersal system and gas resistant membranes

One solution to the associated problems with gas migration into buildings is to provide a passive or active gas collection and dispersal system under the structural slab.

The introduction of a Duodrain 25 Geocomposite and suitable Gas Membrane provides an efficient, practical, cost effective engineered solution for simple passive systems and complex active systems, which may include full monitoring facilities.

The Duodrain 25 Geocomposite gas dispersal system acts as the primary protection layer. This component permits a positive air change under the building via external vents positioned around the perimeter of the building. The Duodrain is laid in either as a blanket covering the whole floor area, or in strips at predetermined centres and is placed under the slab, the design of the Duodrain is governed by the type of gas, gas concentration and the flow rate that the gas is emitting from sub soils.

The secondary protection layer is the Gas Membrane which provides a continuous gas and vapour barrier across the whole footprint of the slab, again the selection of this component is dependant upon gas type, concentration and flow rate. The gas membrane may be a loose laid taped system or a lose laid Geomembrane with welded seams.

Venting externally can be achieved through a number of different options including vent stacks, or bollards, air bricks, ground level vent boxes or dummy lighting columns.



### Membrane options

- Duofoil 2m x 50m roll
- Duothere 2m x 50m roll
- Aquablock LM 5.9m x 200m
- Aquablock PP 5.9m x 200m
- Aquablock HD 5.7m x 200m

### External vent options (images below)

- Gas vent boxes
- Vent stacks
- Vent bollards
- Slimline gas vent box
- Telescopic vent kit

### Internal gas dispersal system

- Duodrain 25mm x 915mm x 50m
- Duodrain 25mm x 450mm x 50m
- Duodrain 12mm x 1000mm x 50m
- Duodrain 8mm x 1000mm x 50m

Other sizes are available dependant upon site specific requirements.

