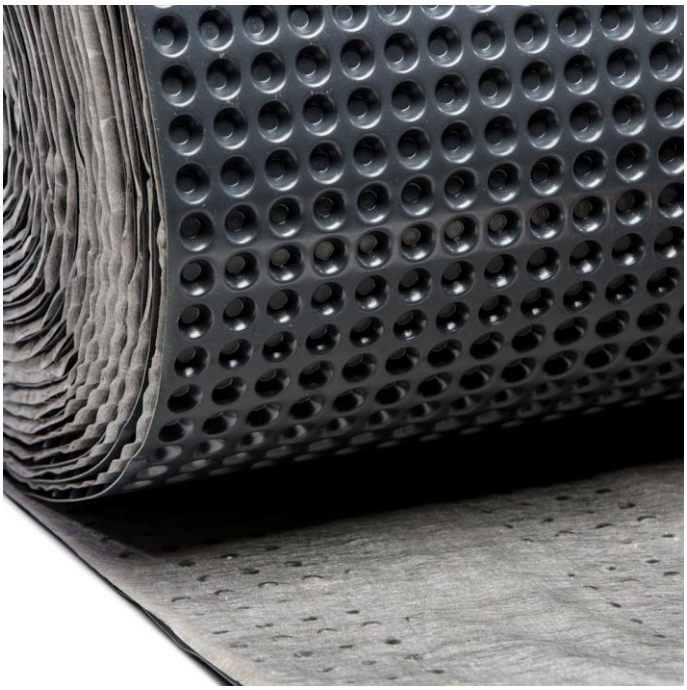
PermaSEAL 8 Geodrain

Protection & Drainage Membrane



Description

PermaSEAL 8 Geodrain is a two-core drainage membrane consisting of a geotextile filter layer bonded to a water impermeable HDPE (High Density Polyethylene) drainage membrane.

PermaSEAL 8 Geodrain is designed to relieve water pressure that bares against the structure by allowing water through the geotextile fabric layer into the cavity created by the dimpled membrane where it freely drains down to the land drain where it is taken away.

The optimal high-performance geotextile boasts very high initial strength and is subject to only minimum deformation under increasing working load.

PermaSEAL 8 Geodrain offers high levels of protection to basement walls by providing fast drainage of water, protection against water borne chemicals and toxins and structural protection against backfill.

When using PermaSEAL 8 Geodrain as specified, it is important to remember this is part of a larger waterproofing system with a suitable primary waterproofing product. This method of waterproofing conforms to a Type A barrier system in accordance with BS8102:2022 code of practice for protection of below ground structures against water from the ground.

Features

- Integrated geotextile fabric firmly bonded to the membrane to prevent slip and compression of the fabric
- High quality geotextile filter layer prevents siltation of the cavity
- Tough and durable
- Easy to install
- High compressive strength
- Manageable roll size/weight for one person
- Waterproof, vapour resistant, salt resistant, rot resistant, contaminant and chemical resistant

Technical Details

PermaSEAL 8 Green Roof	**Technical Details**
Membrane	HDPE approx. 550g/m²
Composition	Virgin HDPE
Geotextile	PP approx. 100g/m²
Stud height	Approx. 8mm
Total weight	Approx. 650g/m²
Number of studs	1710/m²
Compressive strength	Approx. 250kN/m²
Colour	Black
Water drainage capacity	Approx. 2.24 l/s m
Roll length	10m & 20m
Roll width	2m
Air volume between studs	Approx.5.5 l/m²
Temperature resistance	–30 ° C to +80 ° C
Chemical properties	Chemical resistant
Physical properties	Safe for drinking water
Characteristic opening width	Approx. 170 µm
Water permeability EN ISO 11058	Approx. 100 · 10^{-3}m / s
Fire resistance	Class E.

Accreditations

PermaSEAL 8 Geodrain Protection and Drainage membrane is tested and CE marked to the relevant standard.

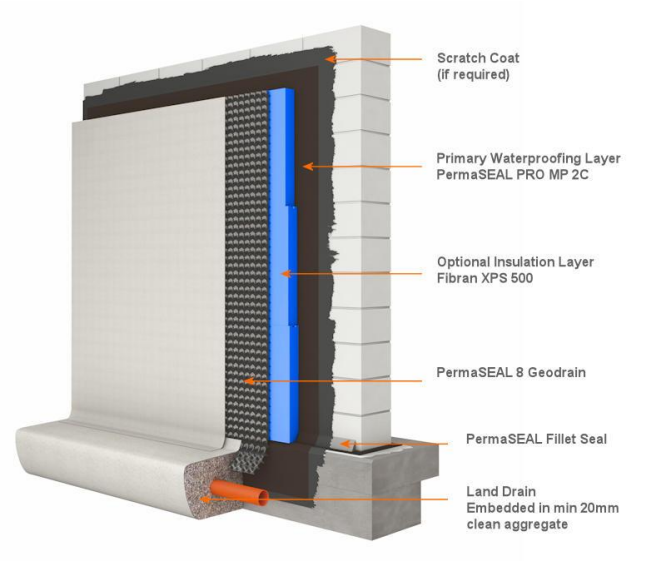
All Permagard products are of a high quality and subject to rigid quality control. The company, however, cannot govern the conditions of usage and application of its products and any warranty, written or implied covers material only. The information contained in this leaflet is given in good faith but no liability can be assumed by the Company for any damage, loss, injury or patent infringement arising from its use.

Permagard Products Ltd
Units B2-B5, Worthy Road
Chittening Industrial Estate
Avonmouth
Bristol, BS11 0YB

+44 (0)117 982 3282
sales@permagard.co.uk

Installation

Apply primary waterproofing to the surface in accordance with the product data sheets to provide a radon, waterproof or gas proof barrier as required. Link any membranes below the raft to the wall membrane.



PermaSEAL 8 Geodrain is supplied in 2m wide rolls. If the foundation wall is less than 2m in height it is possible to fix PermaSEAL Geodrain horizontally with no laps. For walls over 2m fix PermaSEAL 8 Geodrain in vertical sheets with the Geotextile fabric layer facing the backfill and the black drainage layer against the wall being waterproofed.

Ensure that the membrane is fitted level by laser levelling the wall beforehand. Secure the PermaSEAL 8 Geodrain to the wall with PermaSEAL Brick Plugs at the top of the sheet at approximately 500mm spacing's. Drill 10mm holes 70mm into the substrate and hammer home the plugs.

Overlap subsequent sheets of PermaSEAL 8 Geodrain ensuring that the filter fabric of the next sheet overlaps the previous studded core - a section of filter fabric is separated from the drainage core for this purpose.

We suggest one to three rows of studs are interlocked also to keep the rolls running in line. Seal the edges of sheets using the 60mm flat flange at the edge of each sheet using PermaSEAL Tape.

Place slotted drainage pipe or land/French drain to the base of the foundation so that the top of the drain is below the top of the internal slab level. Place the drain within a bed of clean graded 20mm stone surrounded by a sheet of Geo textile filter fabric ensuring that enough Geo textile filter fabric is available to lap to the PermaSEAL 8 Geodrain to give continuity of the filter fabric.

NOTE: If PermaSEAL 8 Geodrain is to be used below the raft also, the pipe will need to be lowered so it is below the horizontal membrane.

Ensure the 100mm slotted drainage pipe or land/ French drain drains freely to a safe collection point and is fully maintainable. If gravity drainage is to be used ensure that the drainage terminates below the level of the internal slab so that drainage surcharge cannot prevent the removal of water from the system.

Install PermaSEAL Geodrain Capping Strip to the top edge of the membrane to prevent debris and back-fill from entering the cavity between the drainage core and the filter fabric.

Installation – Under the Raft

Lay PermaSEAL 8 Geodrain filter fabric facing down in adjoining strips above the hard core. Sand blinding is not required. Extend PermaSEAL 8 Geodrain past the footprint of the raft by 500mm and continue to Land drain surrounded in clean graded stone. Overlap and tape sheets with PermaSEAL Tape.

Further waterproofing, radon and gas control should be laid above the PermaSEAL 8 Geodrain and be later lapped to the wall membrane to provide a continuous barrier.

Finishing

Carefully backfill the excavation. If graded stone is used, a protection board is not required but the stone should be placed in controlled layers of no more than 600mm so as to prevent slump to the membrane. If the removed soil is reused, ensure that it does not contain sharp stones and ensure that the soil is compacted every 600mm. If sharp stones exist within the re-used soil a protection board will be required.

Storage

Store upright in dry conditions at temperatures between 5°C and 25°C. Do not expose to freezing conditions or direct sunlight. Protect from UV.

Health and Safety

Please use the product only in accordance with the information given in this datasheet and the installation guide. There is no legal requirement for a Safety Data Sheet for this product.

Further Information

When specifying PermaSEAL 8 Geodrain it is imperative that the membrane is specified in the correct detail as part of a wider waterproofing and drainage system.

This product is not designed to be a waterproofing membrane, it is designed to be the protection and drainage layer over the primary waterproofing. Please contact our technical department if at all unsure as to its suitability.

All Permagard products are of a high quality and subject to rigid quality control. The company, however, cannot govern the conditions of usage and application of its products and any warranty, written or implied covers material only. The information contained in this leaflet is given in good faith but no liability can be assumed by the Company for any damage, loss, injury or patent infringement arising from its use.

Permagard Products Ltd
Units B2-B5, Worthy Road
Chittening Industrial Estate
Avonmouth
Bristol, BS11 0YB

+44 (0)117 982 3282
sales@permagard.co.uk