PermaSEAL 8 Geodrain

Description

PermaSEAL 8 Geodrain is a two-core drainage membrane consisting of a non-woven geo textile filter layer thermally welded to a water impermeable HDPE (High Density Polyethylene) drainage membrane.

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, this method of waterproofing conforms to a Type A barrier system in accordance with BS8102:2009 code of practice for the protection of structures against water from the ground.

PermaSEAL 8 Geodrain is installed and sealed using PermaSEAL Quick Plugs and PermaSEAL Tape for the joints. PermaSEAL Geodrain Capping Strip is also available for sealing the top of the membrane to the structure.

Features

- High drainage capability
- 250kN/m² compressive strength
- Rot, chemical, bacteria and frost resistant
- Quick and easy to install

Benefits

- Suitable for vertical and horizontal installation
- Multi-functional foundation wall protection
- Prevents water pressure from bearing against the structure
- With stands stresses and movement acting as a slip membrane as the backfill settles
- Very high compression strength
- High drainage efficiency and optimum water discharge through the studded rolls
- Polypropylene filter fabric avoids siltation of the studs
- Drainage capacity exceeds the requirements of DIN 4095
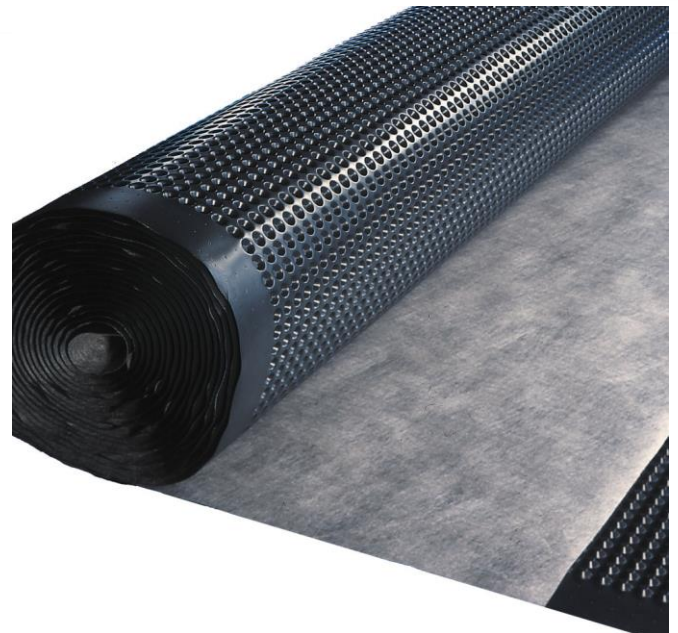
- Highly efficient and durable filter function of the fabric thanks to optimal pore distribution
- Installation can be carried out at sub-zero temperatures
- Quick and easy installation
- Environmentally sound: the material can be completely recycled and has no toxic effects on the water table

Technical Specification

Studded core	HPDE approx. 700g/m²
Geo textile layer	Polypropylene approx 100g/m²
Stud Depth	8mm
Drainage Capacity	3.1L/m²/sec
Compressive Strength	>250kN/m²
Length	10m , 20m
Width	2m
Temperature range	-30°C to +80°C
Chemical Properties	Chemical resistant
Biological Properties	Bacteria, fungus, rot and root resistant
Physical properties	Not harmful to drinking water

Installation – Vertical

Apply primary waterproofing compound (Remmers MB 2K or Profi Tight 1K (radon)) to walls 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 Quick Plugs at the top of the sheet at approximately 500mm spacing's. Drill 10mm holes 80mm 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 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.

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 re-used, 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.

Installation – Under the Raft

Lay PermaSEAL 8 Geodrain 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.

PermaSEAL **Geodrain Capping Strip**

Primary Water & Gas Proof Coating

PermaSEAL **8 Geodrain Membrane**

Land Drain Wrapped in Geo Textile

Storage

PermaSEAL 8 Geodrain should be stored away from direct sunlight. Rolls should be stored in the upright position.

Health and Safety

PermaSEAL 8 Geodrain should only be used as directed. There is no legal requirement for a Material Safety Data Sheet for this product.