



VOLDRAIN®

SUB-SURFACE DRAINAGE GEOCOMPOSITE

DESCRIPTION

VOLDRAIN consists of a heat-formed HDPE studded core, covered on one side with a non-woven polypropylene geotextile filter fabric.

VOLDRAIN is recommended for use in both horizontal and vertical situations to reduce hydrostatic pressure on structural waterproofing systems, as a stand-alone waterproofing system in low risk applications, and as a protective barrier where necessary. It is available in two thicknesses to suit varying project requirements.

VOLDRAIN offers levels of protection required for below ground structures, described in BS 8102: 1990, grades 2, 3 & 4.

APPLICATIONS

VOLDRAIN is suitable for use in the following situations:

- Basements and foundations
- Tunnels and underpasses
- Underground car parks
- Landscaping
- Retaining walls
- Landfill sites
- Roof gardens
- Planter boxes
- Floor slabs
- Plaza decks and terraces

ADVANTAGES

VOLDRAIN has the following benefits:

- Lightweight and easy to handle
- High water flow and drainage capacity – no clogging
- Highly resistant to sulphates, chlorides and other aggressive ground chemicals
- Non-biodegradable
- Simple and rapid application techniques
- High compressive strength
- Environmentally friendly product
- Acts as a protection layer to conventional waterproofing
- Low installation cost - economic alternative to aggregates
- Available in a range of thicknesses and sizes to suit any project requirement
- Compatible with the Volclay Waterproofing System, and can be mechanically fastened through Voltex product (fixing locations self-sealing)

DURABILITY

VOLDRAIN is impervious to water, and when fully protected from UV exposure, has a design life in excess of 120 years.



INSTALLATION

Unroll the VOLDRAIN sections and position over the adjacent sheet by approximately 150mm.

Peel back the geotextile top layer on the edge of the adjacent sheet to a distance of approximately 150mm and press down the overlapping plastic section firmly, to embed the upper layer of dimples onto the lower layer, where possible bond the 2 layers with RX Butyl Bonding Tape.

Then, simply fold the geotextile overlap back over the geotextile below it, and secure as necessary.

Fix the top edge of VOLDRAIN membranes to vertical surfaces using plastic anchor plugs or masonry nails, ensuring that the fixing is above any waterproofing below it, to prevent penetration (Volclay VOLTEX membrane excluded, as Voltex is self-sealing). The lower edge should be positioned over the drainage take-off pipe.

LIMITATIONS

VOLDRAIN is highly abrasion and puncture resistant and will resist almost all construction activities and backfilling. However, like any membrane system, it is possible to damage and displace VOLDRAIN with heavy objects. As such, care should be taken during backfilling to ensure this does not occur.

TECHNICAL DATA

Material	High Density Polyethylene
Colour	Green
In plane water flow rate at 100kPa	3.50 litres/m ² /sec
Flow reduction after 1,000,000 hours	<6%

Tensile strength (Long/cross)	18/20 kN/m
Elongation (Long/cross)	60/30%
CBR Puncture resistance	3,500 N
Working temperature	-20 to 80°C
Chemical resistance	Excellent to all common ground water chemicals

SIZE & PACKAGING**Material Supplied**

Roll Size	2m x 20m
Thickness	8mm (at 2kPa)
Weight	700 g/m ²

HEALTH & SAFETY

There are no health & safety implications in the normal use of this product

NOTES

This data sheet is for general guidance purposes only and may contain information that is inappropriate for certain conditions of use. Accordingly, all recommendations and suggestions are made without guarantee.

Further information is available from our technical department



Birch House, Scotts Quays
 Birkenhead, Merseyside, CH41 1FB, UK
 Tel: +44 (0)151 606 5900
 Fax: +44 (0)151 606 5932

Sales Tel: +44 (0)151 606 5244
 Sales Fax: +44 (0)151 606 5949

