Solshield Drainage and Venting Membrane

Description:

Solshield Drainage and venting mat is a cavity drain former manufactured from a dimpled H.D.P.E. core bonded to a non-woven polypropylene geotextile filter membrane designed to provide a drainage/venting channel in floor and wall construction.

Solshield Drainage & Venting Membrane is a passive gas venting solution for use below the footprint of new developments, especially on brownfield sites. These passive gas venting systems are designed to effectively facilitate the collection and dispersion of ground gases. Our passive gas venting membrane is a 25mm deep HDPE drainage sheet with a non-woven filter geotextile bonded to the top of the cuspate studs (25mm deep is the most commonly specified under BS8485:2015+A1:2019 regulation). Our 25mm Gas Venting membrane provides a high gas flow capacity and compressive strength, is UV stabilized, lightweight, and easy to install within the passive gas venting system.

- **CE Marked.**
- **Easy application for both drainage and venting solutions.**
- **Cost-effective alternative to traditional methods.**
- **Provides protection to tanking/gas membranes.**
- **Prevents tracking of water between membrane.**
- **Can be installed in damp conditions.**
- **Can be applied immediately shutters are struck to wet surface/green concrete.**

Dimensions
12mm: 1m x 50m
25mm: 0.97m x 50m

Application:

Solshield Drainage & Venting Membrane may be used in floors and walls to provide a drainage/venting void beneath the concrete to relieve both water and gas pressures. “Protection of structures against water from the ground”. The HDPE core provides high strength to resist the loads imposed by placing wet concrete. Our drainage and venting mat is designed to be placed with the geotextile filter layer facing the direction of water seepage or backfill.
The drainage and venting mat can be applied against waterproofing membranes or directly against the masonry/concrete substrate.

Installation:

- Drainage membranes are joined together to create a continuous barrier.
- When installing the product over vertically applied tanking or gas protection membranes, it also serves as protection against backfill.
- The membrane can be bonded to the installed membrane with Solco Double Sided Butyl tape.
- In venting applications, the membrane can be laid at predetermined centres or joined to form a blanket as required and, being only 25mm thick means there is a reduced dig when compared to a 200mm or 150mm blanket of stone. It is also extremely strong and flexible with a crush resistance of 250kpa.
- As the venting mat is supplied in rolls of 50m^2, large areas can be covered very quickly when laying in strip format.
- Careful consideration should be given to the slab layout and any available data regarding gas concentration and flow rates.
- Geocomposite Mats are inserted into Solco ‘T-Piece’ Connectors which are commonly joined to Solco Periscope Vents, thereby allowing the collected gases to exhaust external air.

There is a complete range of gas dispersal accessories for the Geocomposite mat. Joining sheets ensure that the sheets to be overlapped are securely joined using Solco Double Sided Butyl Tape.

- The adjacent sheets should be overlapped by approximately 150mm. Peel back the geotextile layer, overlap the dimple sections, ensuring that they are firmly embedded onto each other and that the butyl tape below has securely adhered. The lower sheet should always be installed under the upper sheet.
- Fold the geotextile overlap back over the geotextile below it, and secure using Solco XL Reinforcing Tape.

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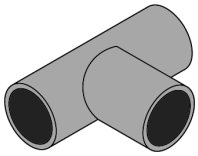
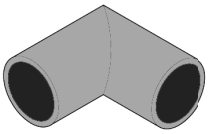
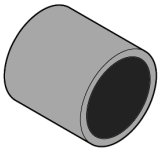
Gas System Dispersal Components:



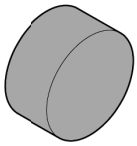
SBP-001 'T' Fitting
110mm & 150mm Ø,



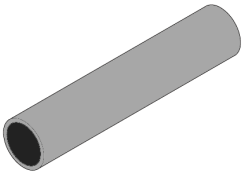
SBP-002 90° Bend
110mm & 150mm Ø,



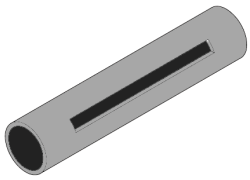
SBP-003 Coupler
110mm & 150mm Ø,



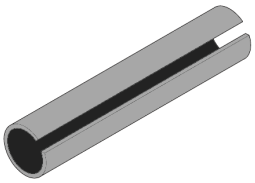
SBP-004 End Cap
110mm & 150mm Ø,



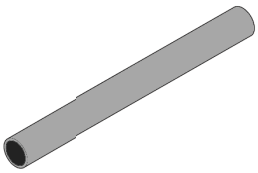
SBP-005 Solid pipe
110mm Ø, for use with SBP-011



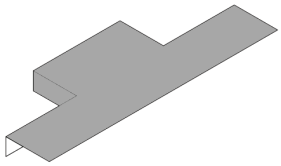
SBP-006 Slotted Pipe
110mm Ø, x 1200mm



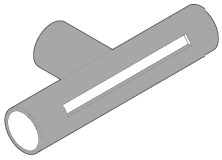
SBP-007 Carrier Pipe
110mm Ø x 6m



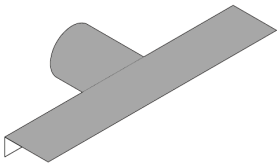
SBP-008 Vent pipe
50mm Ø



SBP-009 Vent outlet
for use with SBP-015/17



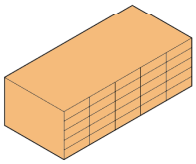
SBP-010
Slotted 'T' Connector
110mm Ø



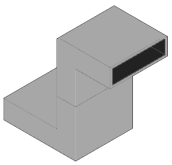
SBP-011 Vent Outlet
110mm Ø

SBP-012 Vent Box
Standard Gully & Half Gulley sizes available

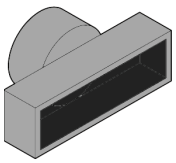
SBP-013 Bollard Vent
110mm Ø



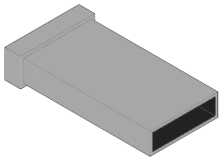
SBP-014 Air Brick
70mm x 215mm
Various Colours



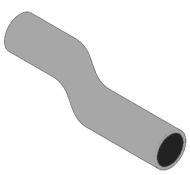
SBP-015
Periscope Vent



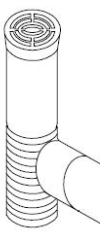
SBP-016 Vent Adapter
110mm Ø for use with periscope or ext sleeve



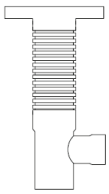
SBP-017
Extension Sleeve
550mm for use with periscope vent SBP-015



SBP-018 Flexible Pipe
110mm Ø, x 1500mm

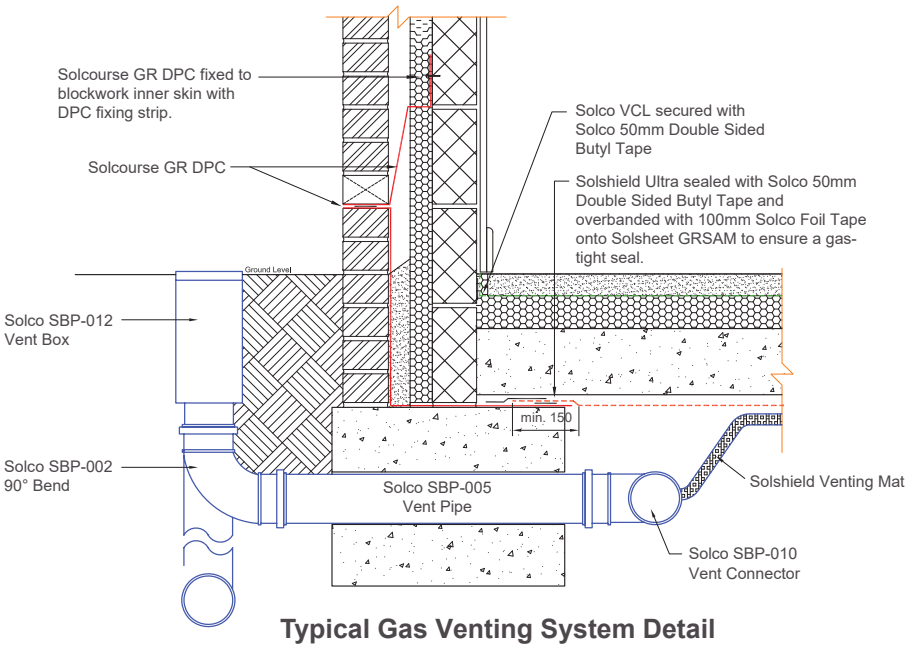


SBP-019
Round
Gully Vent



SBP-020
Rectangular
Gully Vent

*All pipes are available in twin wall



Typical Gas Venting System Detail

Technical Data:

Property	Test	Value
Mechanical Properties		
Short Term Compressive Strength (Composite)	EN 25619-3	300 kPa
Tensile Strength (Composite) *(MD / CMD)*	EN ISO 10319	20 kN/m / 20 kN/m
Tensile Strength (Geotextile) *(MD & CMD)*	EN ISO 10319	9.0 kN.m
Static Puncture (Geotextile)	EN ISO 12236	1.4 kN
Dynamic Perforation (Geotextile)	EN ISO 13433	32mm
Dynamic Perforation (Geotextile)	Calculated	0.024 m^3/s
Hydraulic Properties		
Water Flow (Geotextile)	EN ISO 11058	100 $l/s/m^2$
In Plane Flow Capacity (i=1, Soft Platens)	EN ISO 11058	20kPa - 10 l/s/m 100kPa - 6 l/s/m
Coefficient of Permeability (Geotextile)	EN ISO 11058	2 l/m^2
Characteristic Opening Size (Geotextile)	EN ISO 12956	80 µm
Physical Properties		
Thickness (At 2kPa)	EN ISO 9863-1	27mm
Standard Colour (Cuspate)		Black
Standard Colour (Textile)		White
Polymer (Textile)		PP

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