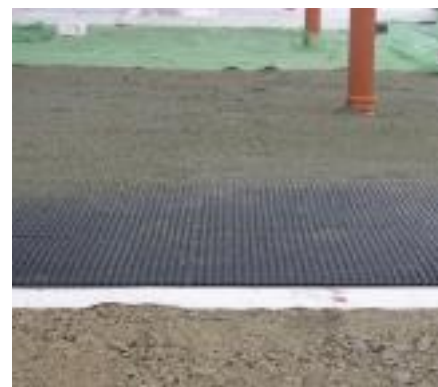


# SOLSHIELD Geocomposite Drainage and Venting



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

- 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
- Resistance to Hydrostatic head of water of 46m.
- Can be installed in damp conditions
- Can be applied immediately shutters are struck to wet surface/green concrete



## SOLSHIELD - Gas Protection System

Last Issue Date 08.11.17

### Product Description

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

### Application

Geocomposite drainage and venting mat may be used in floors and walls to provide a drainage/venting void beneath the concrete to relieve both water and gas pressures, suitable to provide grade 4 protection as defined in BS 8102: 1990. "Protection of structures against water from the ground".

The HDPE core provides high strength to resist the loads imposed by placing wet concrete. Geocomposite drainage and venting mat is designed to be placed with the geotextile filter layer facing the direction of water seepage or backfill. Geocomposite drainage and venting mat can be applied against waterproofing membranes or directly against the masonry/concrete substrate.

### Installation

In drainage applications, the mat is joined together to create a continuous barrier. When installing the product over vertically applied tanking membranes or gas protection membranes, it also serves as protection against backfill. The Geocomposite Mat can be bonded to the installed membrane with Solco Double Sided Butyl tape. In venting applications, the mat 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 and is supplied in rolls of 50m<sup>2</sup>; therefore 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. When laid as strips, the ends of the

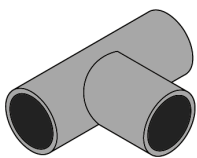
Geocomposite Mat are inserted into Solco 'T-Piece' Connectors which are commonly joined to Solco Periscope Vents, thereby allowing the collected gases to exhaust to external air.

There is a complete range of gas dispersal accessories for the Geocomposite mat. When 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 is securely adhered. (The lower sheet should always be installed under the upper sheet). Then, simply fold the geotextile overlap back over the geotextile below it, and secure using Solco XL Reinforcing Tape.

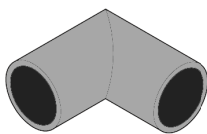
	Test	Unit	Mean Values
<b>MECHANICAL PROPERTIES</b>			
Short Term Compressive Strength – Composite	EN 25619-2	kPa	300
Tensile Strength – Composite (MD/CMD)	EN ISO 10319	kN/m	20/15
Tensile Strength – Geotextile (MD/CMD)	EN ISO 10319	kN/m	9.0
Static Puncture – Geotextile	EN ISO 12236	kN	1.4
Dynamic Perforation – Geotextile	EN ISO 13433	mm	32
<b>HYDRAULIC PROPERTIES</b>			
Gas flow capacity – Composite	Calculated(b)	m <sup>3</sup> /s	0.024
In plane flow capacity i=1 (Soft platens)	@ 20kPa		10
	@ 100kPa	EN ISO 11058	l/s/m
	@ 100kPa		5
Water flow – Geotextile	EN ISO 11058	l/s/m <sup>2</sup>	100
Coefficient of permeability – Geotextile	EN ISO 11058	l/m <sup>2</sup>	2.0
Characteristic Opening Size – Geotextile	EN ISO 12956	µm	80
<b>PHYSICAL PROPERTIES</b>			
Thickness @ 2kPa	EN ISO 9863-1	mm	27
Standard Colour - Cuspate			Black
Polymer – Cuspate			HDPE
Standard Colour – Textile			White
Polymer – Textile			PP

# Gas System Dispersal Components

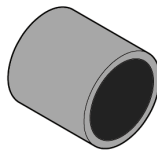
(All pipes are available in twin wall)



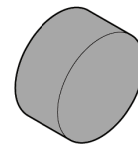
**SBP-001 'T' Fitting**  
110mm & 150mm Ø,



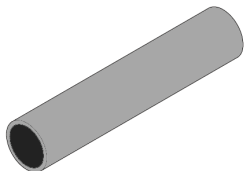
**SBP-002 90° Bend**  
110mm & 150mm Ø,



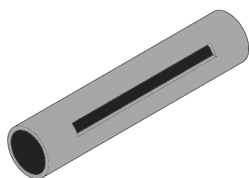
**SBP-003 Coupler**  
110mm & 150mm Ø,



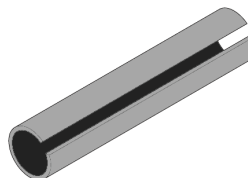
**SBP-004 End Cap**  
110mm & 150mm Ø,



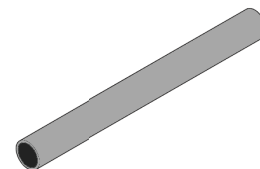
**SBP-005 Solid pipe**  
110mm Ø, for use with  
SBP-011



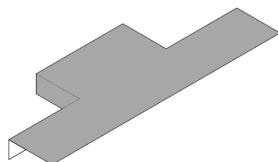
**SBP-006 Slotted Pipe**  
110mm Ø, x 1200mm



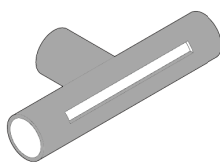
**SBP-007 Carrier Pipe**  
110mm Ø x 6m



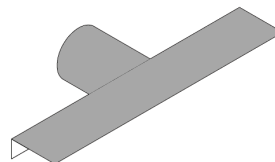
**SBP-008 Vent pipe**  
50mm Ø



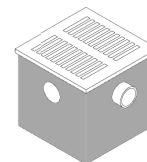
**SBP-009 Vent outlet**  
for use with SBP-015/17



**SBP-010  
Slotted 'T' Connector**  
110mm Ø



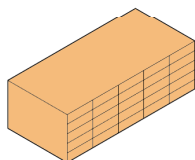
**SBP-011 Vent Outlet**  
110mm Ø



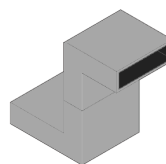
**SBP-012 Vent Box**  
Standard Gully & Half  
Gulley sizes available



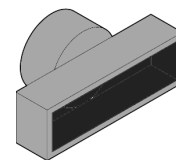
**SBP-013 Bollard Vent**  
110mm Ø



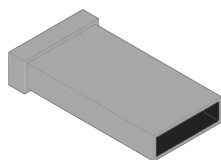
**SBP-014 Air Brick**  
70mm x 215mm  
Various Colours



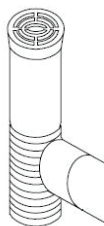
**SBP-015  
Periscope Vent**



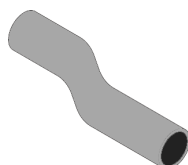
**SBP-016 Vent Adapter**  
110mm Ø for use with  
periscope or ext sleeve



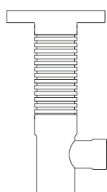
**SBP-017  
Extension Sleeve**  
550mm for use with  
periscope vent SBP-015



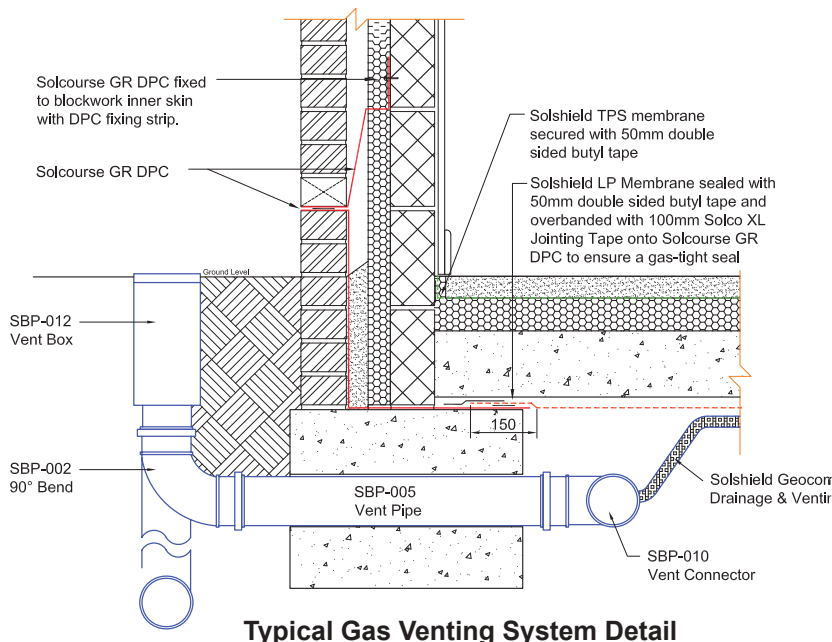
**SBP-019  
Round  
Gully Vent**



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



**SBP-020  
Rectangular  
Gully Vent**



**Typical Gas Venting System Detail**