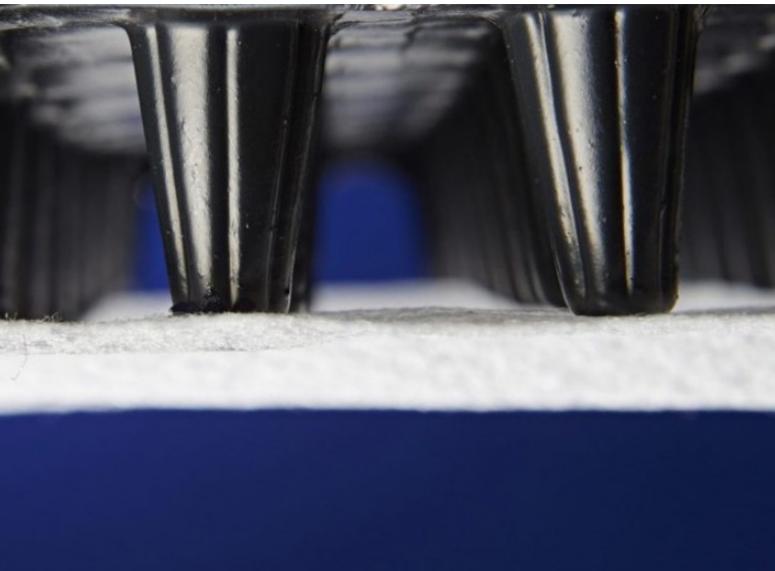


Geocomposite Vent Mat Data Sheet



The Geocomposite Vent Mat is part of Cordek's Ground Gas Venting System range, designed to dilute and disperse hazardous ground gases from beneath the footprint of buildings to the atmosphere.

The product consists of a 25mm thick, cusped HDPE profile with a geotextile filter layer bonded to one side and is supplied in roll format.

In addition to the Geocomposite Vent Mat, additional products within the Cordek VOC & Ground Gas range to provide a complete protection system include:

- VOC & Ground Gas Resistant Membranes
- VOC & Ground Gas Resistant Damp Proof Courses (DPC's)
- Membrane Jointing & Penetration Detailing Tapes
- Venting Accessories & Outlets

Further information on the above can be found on the Cordek website – www.cordek.com or by contacting a member of the Cordek technical team – **01403 799600**.

Key Features

- High compressive strength & excellent gas flow capacity
- Quick and simple installation
- Thin profile reduces excavation time and / or material removal costs
- Can be used for full coverage of building footprint (passive sub-floor dispersal layer) or in strips (pressure relief system)
- Suitable for projects with both Characteristic Gas Situation (CS) 2 and 3* designations, in-line with BS 8485:2015 + A1:2019

* Also suitable for CS4 designated projects, however this is subject to restrictions on building width.

For further information, please contact the Cordek technical team on 01403 799600, techsupport@cordek.com or consult our website at www.cordek.com.

Installation

The procedure for installing the Geocomposite Vent Mat is straightforward, but the following points should be adhered to:

- Please ensure that the Geocomposite Vent Mat is installed upon a flat and level surface consisting of a material that is suitably permeable to ground gases and vapours.
- The side with the bonded geotextile filter layer should be positioned directly on to the prepared sub-base, so that the points of the cuspatations are facing downward.
- Where cutting of the product is required, this can be undertaken using a fine tooth saw or a sharp bladed tool.
- Individual strips or sections should be butted together, with taping of the joints using Cordek Formwork Tape to avoid any grout loss, unless overlain by a suitable membrane.
- Reinforcement spacers can be positioned directly upon the product, when the appropriate number and type of spacer are used. The top surface of the installation can be reinforced with a layer of concrete blinding to spread the spacer loads if required e.g. where a very heavy reinforcement arrangement has been specified.
- Further information relating to installation can be found within the Geocomposite Vent Mat Installation Guide, available for download from www.cordek.com.



Storage & Handling

All products are delivered in a polythene wrapping and are clearly labelled. Rolls are delivered on either pallets or bearers to allow mechanical unloading and handling.

Once in position, unrolling of the product can be undertaken manually as can manoeuvring of individual strips or sections, considering any site-specific manual handling requirements or restrictions.

No specific storage requirements are needed as the product is unaffected by both UV light and water when in its original packaging.

Products Sizes

Dimensions (when unrolled): 25mm deep x 900mm wide x 50m long (45 sq/m overall)

Dimensions (on roll): 900mm deep x 1300mm external diameter when laid on side

Approximate Product Weight: 75kg per roll

Properties

	Test	Unit	Mean Values		
MECHANICAL PROPERTIES - Geocomposite					
Compressive strength	EN ISO 25619-2	kPa	300		
Tensile strength (MD/CMD)	EN ISO 10319	kN/m	18		
Static puncture (CBR)	EN ISO 12236	kN	2.2		
HYDRAULIC PROPERTIES - Geotextile					
Water permeability v_{H50}	EN ISO 11058	l/(m ² .s)	100		
Apparent opening size	EN ISO 12956	µm	80		
HYDRAULIC PROPERTIES - Geocomposite					
Gas flow capacity	Calculated ^(b)	m ³ /s	0.07		
Water flow capacity in the plane (rigid/rigid)	EN ISO 12958	l/(m.s)	(i=1)	(i=0.5)	(i=0.1)
@ 20kPa			15.0	11.0	5.0
@ 100kPa			15.0	11.0	5.0
@ 200kPa			15.0	11.0	5.0
PHYSICAL PROPERTIES					
Thickness @ 2kPa	EN ISO 9863-1	mm	26		
Standard colour - Cuspate			Black		
Polymer - Cuspate			HDPE		
Polymer - Textile			PP		

Notes:

a) Mean values indicate the arithmetic mean derived from the samples taken for any one test as defined in the standard – usually an overall mean of five samples.

Mean values are subject to tolerances based on 95% confidence limits as published on the product CE declaration of performance.

b) Gas flow calculation based on a discharge coefficient of 0.61 with a pressure difference of 10Pa and a standard air density of 1.29kg/m³.

Additional VOC & Ground Gas Protection Products:

Alternative Ground Gas Venting Systems:

A unique range of gas ventilation products which have been developed following extensive research and testing. These include:

Ventform - Moulded EPS panels that provide a combination of ground gas venting capabilities with insulation properties

Cellvent HX - The combined ground heave protection and passive venting system

Radon Sumps - A collection and extraction point for radon gas from beneath the foundations of buildings

VOC & Ground Gas Resistant Membranes:

A range of construction membranes with proven resistance to the transmission of Volatile Organic Compounds (VOC's), Hydrocarbons, Methane, Carbon Dioxide and Radon, whilst also performing the function of a Damp Proof Membrane (DPM).

VOC & Ground Gas Resistant Damp Proof Courses (DPC's):

These Damp Proof Courses (DPC's) are designed to be installed within masonry wall constructions to restrict the transmission of VOC's, ground gases and moisture. With excellent all round physical properties, including good mortar adhesion and flexibility even at low temperatures, they are designed to be used in conjunction with corresponding membranes that have the same performance characteristics.

Gas Membrane Jointing Tapes:

In instances where its is permissible to do so, this range of products offer a robust and versatile method of effectively sealing junctions, laps and penetrations within Ground Gas Resistant Membrane installations.

Venting Accessories & Outlets:

To adequately vent VOC's and ground gases from beneath the footprint of a building, vent outlets are required to be connected to the sub-floor venting system.

The selection of the most appropriate vent type is based upon their proposed location, the perimeter wall construction of the building and the required air flow capacity, which in turn dictates the spacing between each vent.

Cordek offer a range of ventilation accessories and outlets, to passively vent ground gases and vapours safely from beneath the building footprint to the atmosphere.

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DISCLAIMER: Information contained within this 'Technical Data Sheet' is for guidance only, and it is intended for experienced construction industry workers. It contains summaries of aspects of the subject matter and does not provide comprehensive statements of construction industry practice. As conditions of usage and installation are beyond our control we do not warrant performance obtained. Please contact us if you have any doubt as to the suitability of application. The information provided within this document is based on data and knowledge correct at the time of printing.

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