

Ventilation Systems

Aldervent Geo-Void 52/96

Specifically designed and manufactured to create large flow void space below structures constructed on contaminated land where landfill gas is a potential hazard

Aldervent Geo-void 52/96 is designed to be installed below the structural slab in or on top of the formation layer.

Features

- Light weight heavy duty, 96% void matrix
- Quick and simple to install
- No maintenance cost
- Economic and Ecologically friendly
- Simple connections to all Aldervent inlet/outlet units.
- Extremely high infiltration and flow rate capability
- High Load Capacity to enable direct loading by site traffic

provide an extremely strong heavy load bearing void former that once installed is more than capable of supporting site traffic for slab installations (i.e. concrete wagons, laser pour vehicles).

Description

When installed as a blanket the Geo-void 52/96 is overlaid with Geotex 225 filter membrane prior to the installation of the gas barrier membrane or the structural slab.

When installed in strip form in either 260mm wide or 480mm wide lengths (or multiples thereof) the Geo-void 52/96 is supplied pre-wrapped in Geotex filter fabric and installed at designed centres in the formation layer.



Description

Aldervent Geo-void 52/96 is a void forming modular system installed in one operation to either cover the whole of the building footprint as a blanket or laid in strip form at design determined centres.

At perimeters of foundations the Geo-void 52/96 is connected to inlet and outlet gas collection systems. Dependent on the design criteria and air flow rates required, these can be Aldervent Thru-wall Vent Units, Vent Bollards, Ground Level Vent Boxes, Vertical risers or slim vents
(see separate data sheets)

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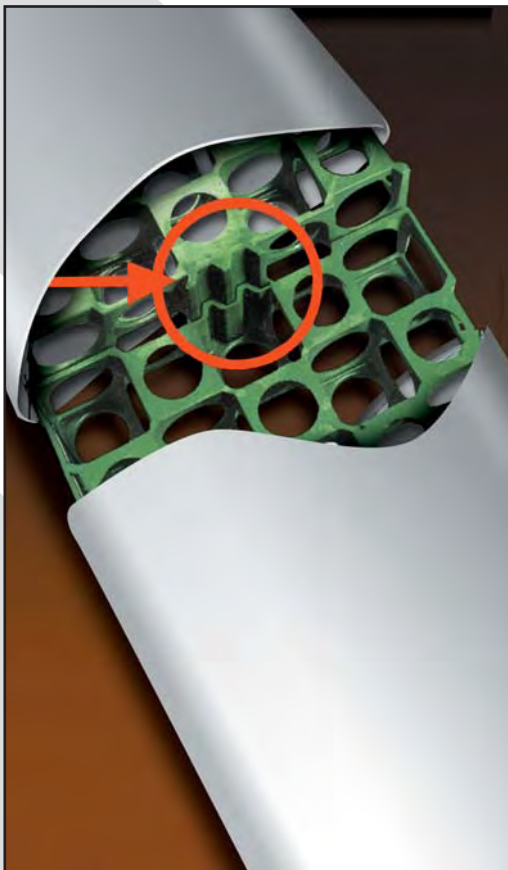
Technical Data

GEO-VOID 52/96

Size of modules	480mm x 260mm x 52mm
Filter wrapped strips	3.12mt x 480mm x 52mm 3.36mt x 260mm x 52mm
Loading/Crush Strength	1457.6 kN/m ²
Material	100% Polypropylene
Void Ratio/Porosity	96% 3D matrix
Intrinsic Permeability (K(m ²))	2.4 x 10 ⁻⁴
Clear void space equivalent	44.7mm

GEOTEX 225

Filter fabric see separate data



Aldervent Geo-void 52/96 allows for the rapid dilution and safe dispersal of land borne gases from beneath the building footprint, allowing for complete flexibility in foundation design.

Aldervent Geo-void 52/96 has been CFD modelled in line with recommendations and tests undertaken for the DOE Partners in Technology report "Passive Venting of Soil Gases Beneath Buildings Research report Design Guide 1997".



Where developments are considered on sites with extremely high gas emission figures active upgrades and gas monitoring systems can be attached to the designed passive systems if required.

It should be noted that due to Geo-void 52/96 unique void ratio and flow capability, passive systems in strip form are more efficient than many blanket void systems designed. This makes Geo-void 52/96 extremely cost efficient and economical in use.

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Installed as a full blanket to cover the footprint of the building, the Geo-void 52/96 void forming 3d matrix provided a totally unique high permeability, high flow rate, high strength medium for the safe dilution and dispersal to atmosphere of all land borne gases from beneath the footprint of any structure, even when considerations for high emitting gas volumes have to be calculated.



Geo-void 52/96 extremely high 1400kN/m² crush strength make it the ideal solution to under slab venting on fast-track operation sites, particularly when laser pouring vehicles and the laser pouring machines.

Geo-void is more than capable of absorbing the loading from both the concrete vehicles and the laser pouring machines.

Geo-void 52/96 in-built clipping system creates an extremely stable robust base and platform for following trades to work on with no lateral movement from the system.

Geo-void 52/96 unique void ratios create a large volume airflow gas for the rapid dilution and dispersal of land borne emitting gases.

Easily connected to the Aldervent perimeter gas collection system and the appropriate inlet and outlet connections available (see separate data), dependent on volume flow figures required and site-specific aesthetics required.

