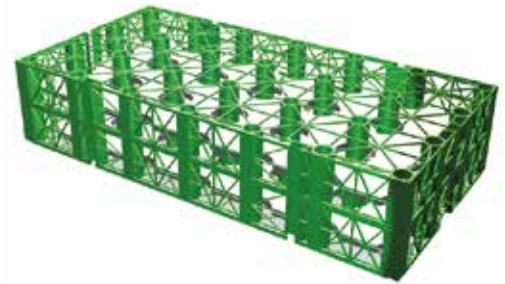


Product code: PV150BM

Permavoid Biomat is a high strength geocellular unit, containing a low density, oil treating, geosynthetic floating mat (biomat). The biomat floats on water and is designed to intercept and treat any potential residual emulsified oils that may be present within the surface water. The use of Permavoid Biomat provides additional oil retention and water treatment capability to an underground water storage system.



## Key Benefits

- Secondary treatment phase for potential residual hydrocarbons
- Pollutant-intercepting floating mat
- Same size as Permavoid 150mm cells so can be incorporated into Permavoid attenuation and infiltration designs
- Floating medium maintained at air-water interface allowing optimum conditions for aerobic degradation
- Self maintaining, degrades residual oils by absorption and aerobic digestion
- 100% recyclable
- Units are manufactured from 90% recycled polypropylene (pp)

## Applications

Permavoid Biomat units are suitable for use as a stormwater attenuation and/or infiltration system. The system comprises of single, interconnected cells which can be installed in the ground as part of a sub-base formation. Permavoid Biomat is suitable for use in a range of applications including residential, industrial estates, car parks, sports pitches, roofs, basements, pedestrian areas and rainwater harvesting.

## Performance

The structural load bearing capacity of the Permavoid Biomat units have been tested in accordance with the following European Standard: BS 7533-13:2009. The system's structural design life expectancy, based upon creep test data (tested in accordance with CIRIA guidelines) is as follows; for lightly loaded areas such as car parks a design life of 50 years is achievable. For areas with prolonged HGV loading a typical design life may only be 25 years, depending on the design of the pavement surfacing and structural layers over the tank.

## Installation Standard

All calculations for Permavoid Biomat units are based upon site-specific load cases, pavement construction types and thickness, soil cover and ground conditions and the suitability must therefore be approved for each project.

ELEMENT	VALUE
<b>PHYSICAL PROPERTIES</b>	
Weight per unit	3kg
Length	708mm
Width	354mm
Depth	150mm
<b>SHORT TERM COMPRESSIVE STRENGTH</b>	
Vertical	715kN/m <sup>2</sup>
Lateral	156kN/m <sup>2</sup>
<b>SHORT TERM DEFLECTION</b>	
Vertical	1mm per 126kN/m <sup>2</sup>
Lateral	1mm per 15kN/m <sup>2</sup>
<b>TENSILE STRENGTH</b>	
Of a single joint	42.4kN/m <sup>2</sup>
Of a single joint at (1% secant modulus)	18.8kN/m <sup>2</sup>
Bending resistance of unit	0.71kN/m
Bending resistance of single joint	0.16kN/m
Volumetric void ratio	92%
Average effective perforated Surface area	52%
<b>OTHER PROPERTIES</b>	
Intrinsic permeability (k)	Minimum 1.0 x 10 <sup>-5</sup>
Oil retention	56g/m <sup>2</sup>
Effluent Discharge at max. oil loading	10ppm
Ancillary	Permavoid Permatie Permavoid Shear Connector

## Technical Support

Detailed guidance and assistance is available.

For further information, please contact our Technical Team on **+44 (0) 1509 615 100** or email [civils@polypipe.com](mailto:civils@polypipe.com)

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