The Permavoid Medium Duty with Biomat units are suitable for use as a stormwater retention, infiltration or attenuation system. Used to provide hydrocarbon treatment, they are suitable for a range of applications including retail, residential, commercial and off-road car parking.

**Key Benefits**
- Pollutant-intercepting floating mat degrades residual oils by absorption and aerobic digestion
- Can be incorporated into Polystorm retention, infiltration and attenuation systems
- 95% void ratio
- Light in weight yet robust – excellent health & safety and installation benefits
- 60 years creep limited life expectancy
- 100% recyclable
- Units are manufactured from recycled materials

**Performance**
The structural load bearing capacity of the Permavoid units have been tested in accordance with CIRIA C680. The structural design life is a minimum 60 years.

The units provide 3D flow and have a void ratio of 95%.

**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 or visit www.polypipe.com/civils-technical-hub

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**Applications**
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**ELEMENT**

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<tr>
<th>VALUE</th>
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<tbody>
<tr>
<td>Length 1m</td>
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<tr>
<td>Width 0.5m</td>
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<tr>
<td>Depth 0.4m</td>
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<tr>
<td>Total volume 0.2m³</td>
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<tr>
<td>Unit weight 9kg</td>
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<tr>
<td>Unit storage volume 0.19m³ (190 litres)</td>
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<tr>
<td>Void ratio 95%</td>
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**SHORT TERM COMPRESSION STRENGTH**

* Vertical Maximum 610 kN/m²*
* Lateral Maximum 63 kN/m²*

**SHORT TERM DEFLECTION**

* Vertical 60 kN/m² per mm
* Lateral 4.4 kN/m² per mm

**OTHER PROPERTIES**

* Intrinsic permeability (k) Minimum 1.0 x 10⁻⁵
* Oil retention 56g/m²
* Effluent discharge at max. oil loading 10ppm

Note: Permavoid Medium Duty with Biomat is ideal for use in trafficked and pedestrian applications subject to a structural design check and suitable installation conditions.

Each unit includes 4 clips and 2 shear connectors.

* Compressive strength at yield, maximum recommended value for design purposes.
Permavoid – Medium Duty with Biomat can be utilised in these SuDS techniques

<table>
<thead>
<tr>
<th>TECHNIQUES</th>
<th>Blue-Green roofs</th>
<th>Podium Decks</th>
<th>Trees</th>
<th>Sports Pitches</th>
<th>Cycle Paths</th>
<th>Permeable Paving (sub base &amp; podium)</th>
<th>Bioretention &amp; Rain Gardens</th>
<th>Attenuation Storage Tanks</th>
<th>Infiltration</th>
<th>Swales</th>
<th>Filter Drains</th>
<th>Detention Basins</th>
<th>Ponds &amp; Wetlands</th>
<th>Filter Strips</th>
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