

The Geocellular Water Management and Source Control system **for shallow installations**

Polypipe's tried and tested Permavoid geocellular system provides robust, effective water management and source control, through detention, attenuation or infiltration/soakaway, at shallow depths.

Shallow installations offer major benefits against traditional deep installations and on projects where problematic ground conditions are prevalent.

The system comprises high-strength Polypropylene modular cells, connected together using tapered ties to create a consistent structural raft that is ideal for sub-base replacement.

The cover depths to the invert of the raft required in loaded areas will vary depending on the ground conditions but typically are:

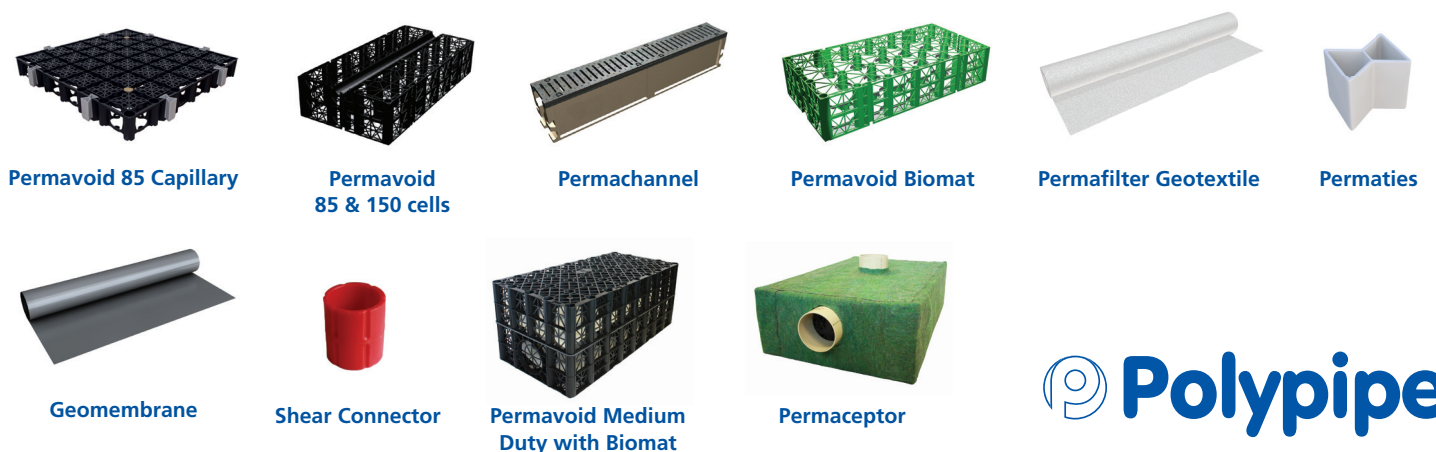
- Restricted car parks 130mm (Burial depth 280mm)
- Unrestricted car parks 260mm (Burial depth 410mm)
- HGV loading 400mm (Burial depth 550mm)



Please note: Illustrations are for guidance only. Not to scale.

The system can be installed beneath impermeable and permeable, trafficked and non-trafficked areas, and incorporates a range of components that can effectively separate silt and hydrocarbons at source improving biodiversity. This eliminates the need for large, deep silt traps, oil separators and pumping stations.

The Permavoid System comprises of:





Engineered solution

Permavoid is an engineered, geocellular water management solution which meets the demands of current legislation and guidance.

It is manufactured and tested in full compliance with CIRIA C 680, 'Structural design of modular geocellular drainage tanks' and BS 7533-13: 2009 'Guide for the design of permeable pavements constructed with concrete paving blocks and flags, natural stone slabs and setts and clay pavers'.

Conforming to the requirements for sub-base replacement systems in BS 7533-13 it offers greater vertical and lateral compressive strength properties than required in Annex B, Table B1 'Typical physical properties' whilst maintaining a 95% void ratio.

Benefits of the Permavoid System

- Designed and tested for detention, attenuation or infiltration/soakaway at shallow depths
- Provides effective source control
- Interlocking raft for rigidity and a high compressive and tensile strength under load
- Can be installed above a high water table
- Allows water to be spread across a site
- Suitable for use beneath porous and non-porous surfaces
- Removes the requirement for pumping stations
- Reduction in excavation depth and cost
- No need for trench supports or plant to deliver and remove trench support panels
- Provides treatment to remove silt and hydrocarbon deposits
- Oil interception at source – no need for petrol interceptors
- Can be used in combination with the full range of Polystorm geocellular solutions for deeper applications
- Can be installed above shallow hard rock
- Ideal for sites with confined/awkward footprints
- Overcomes issues associated with shallow outfalls



Contact Us

to visit our Technical Centre

Look out for our Permavoid Technical Manual, available to download from our website

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