

Permavoid in the Urban Environment – Rainwater Interception

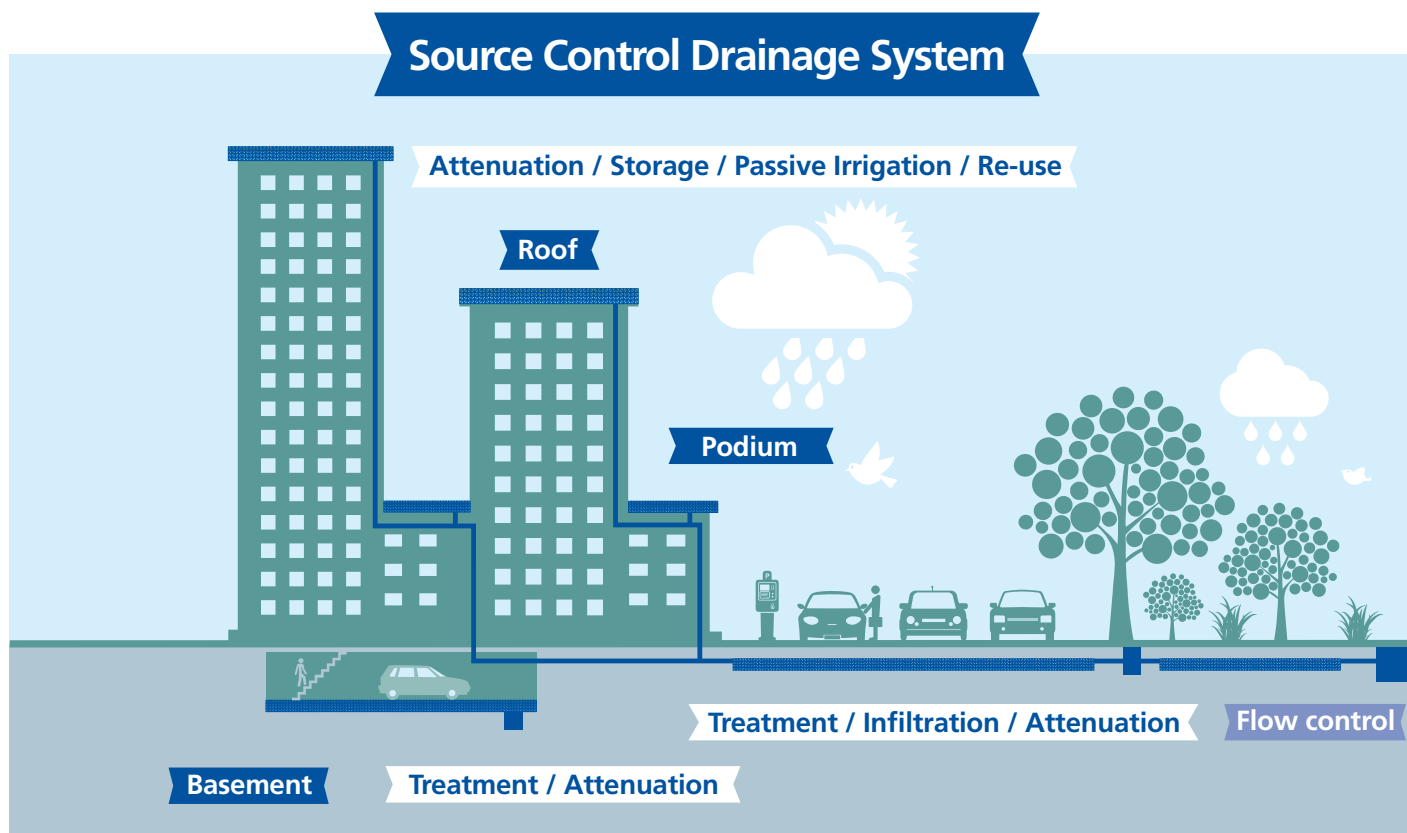
Reducing rainwater run-off adds significant value to Sustainable Urban Drainage Systems (SUDS). By intercepting rainwater at the source, it can be used as a resource.

The majority of rainfall events in the UK are less than 5mm in depth. Traditionally, rainwater is collected and removed from the building as quickly as possible. Rainwater interception aims to collect and prevent the run off from all rainfall events and minimise the cumulative impact on the surrounding environment.

BS 8582:2013, which is the code of practice for surface water management for development sites, gives guidance on the techniques that deliver rainwater interception for roofs and impermeable surfaces within the built environment.

Interception delivery techniques

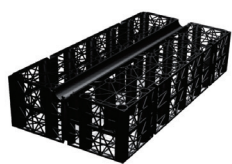
- Porous surfaces with sub surface storage
- Rain gardens
- Bio retention systems
- Rainwater recovery systems
- Green/Brown roofs with subsurface storage
- Blue roof applications



Permavoid systems provide storage, treatment, flow control, evaporation and passive irrigation. Each of these systems are critical to the performance of source control drainage systems.

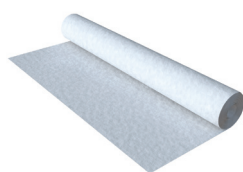
A comprehensive source control solution

The Permavoid Rainwater interception system comprises of load bearing, high strength modular cells, robust geotextiles (to provide pre-treatment), geomembranes, rainwater outlets incorporating flow control and engineered PVCu and HDPE pipework systems. The system can enhance the effectiveness of both 'green' and 'brown' roof applications, and can provide a 'blue' roof attenuation system. The inherent strength of Permavoid modular geocellular units allow the system to be incorporated in a wide range of SUDS solutions.



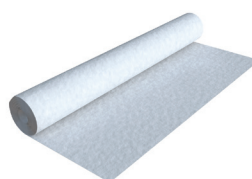
Permavoid
(85mm and 150mm)

Geocellular storage system that fits together to form an interlocking raft of exceptional high compressive and tensile strength.



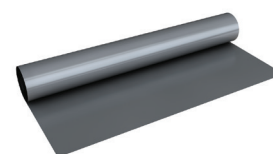
Permavoid Wicking Geotextile

A non-woven geotextile formulated to provide passive irrigation to soft and landscaped areas.



Permafilter Geotextile

A non-woven geotextile designed for hydrocarbon pollution treatment.



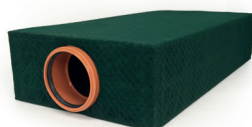
Geomembrane

An impermeable membrane that wraps around Permavoid structures to form watertight tanks.



Terrain Rainwater Interception Outlets

Designed to control the rainwater run off from roof areas and podium decks.



Permavoid Rainwater Diffuser Unit

Permavoid units encapsulated with a 2mm mesh fabric diffuse the collected run-off into the surroundings.



Terrain PVC Pipework

A comprehensive range of pipes and fittings offering flexible installation.



Terrain FUZE HDPE Pipework

A top-to-bottom solution for all above ground drainage and many chemical waste applications.



Contact Us

to find out about our Technical Workshop

Look out for the next Polypipe Terrain Water Management Solutions Technical Bulletin coming soon