

Product code: PVPP85PF or PVPP150PF

Permafoam is an open-celled, phenolic foam that is highly absorbent and water retentive. Incorporated into Permavoid high-strength units, Permafoam has the capacity to store 31 litres of water and is used mainly for check dams. The Permavoid structure prevents the foam from damage due to imposed backfill or traffic loads.



Applications

Permafoam units are used for stormwater collection and provide velocity control to drainage flows within sub-bases laid over sloping surfaces. Due to the very large surface area compared to traditional check-gate flow control, Permafoam assures against the risk of the control clogging associated with traditional check-gate flow controls.

Key Benefits

- Permafoam units can be used to form check dams and gates within pervious pavements, sports pitches and podium applications.

Performance

The structural load bearing capacity of the Permavoid 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.

Technical Support

Detailed guidance and assistance is available. For further information, please contact our Technical Team on **+44 (0) 1509 615100** or email civils@polypipe.com or visit www.polypipe.com/civils-technical-hub

| ELEMENT | VALUE |
|--|---|
| PHYSICAL PROPERTIES | |
| Weight per unit | 2.5kg or 3.65kg |
| Length | 708mm |
| Width | 354mm |
| Depth | 85mm or 150mm |
| SHORT TERM COMPRESSIVE STRENGTH | |
| Vertical | 715kN/m ² |
| Lateral | 156kN/m ² |
| SHORT TERM DEFLECTION | |
| Vertical | 1mm per 126kN/m ² |
| Lateral | 1mm per 15kN/m ² |
| TENSILE STRENGTH | |
| Of a single joint | 42.4kN/m ² |
| Of a single joint at (1% secant modulus) | 18.8kN/m ² |
| Bending resistance of unit | 0.71kN/m |
| Bending resistance of single joint | 0.16kN/m |
| OTHER PROPERTIES | |
| Volumetric void ratio | 83% |
| Water storage capacity (foam) | up to 31 Litres |
| Water permeability (in plane flow) | 0.0452 Litres/second/lin.m |
| Ancillary | Permavoid Permatie Permavoid Shear Connector |
| Material | Polypropylene (CoPo), Polyurethane |

Permafoam can be utilised in these SuDS techniques

| TECHNIQUES | | | | | | | | | | | | | |
|------------------|--------------|-------|----------------|-------------|---|--------------------------------|------------------------------|--------------|--------|---------------|------------------|------------------|---------------|
| Blue-Green roofs | Podium Decks | Trees | Sports Pitches | Cycle Paths | Permeable Paving (sub base & podium) | Bioretention & Rain Gardens | Attenuation Storage Tanks | Infiltration | Swales | Filter Drains | Detention Basins | Ponds & Wetlands | Filter Strips |
| | ✓ | | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | |

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