



Polystorm Modular Cell

Attenuation & Soakaway Solutions

Climate Change

Average UK temperatures are expected to rise by up to 2 - 3.5°C by 2080, resulting in a dramatic change in the seasonal distribution of rainfall and subsequent weather patterns. The flooding witnessed during recent years is a clear indication that climate change is causing more frequent and extreme weather events and innovative solutions are required to cope with increased pressure on our existing drainage and water management networks.

Legislation to address the problems

Recognition of the impact of climate change has resulted in new regulations and updated guidance for surface water drainage and flood risk. In 2002, the Government revised approved document part H of the building regulations, with updated planning guidance notes for PPS:25 Flood Risk and Assessment following in recent years.

Sustainable Urban Drainage Systems (SUDS) are an alternative to the traditional approach of collecting stormwater in pipes and discharging it into treatment works or watercourse.



Polystorm Xtra

Designed for use in deeper burial depths and heavily trafficked installations with a load bearing capacity of 80 tonnes.



Polystorm

Designed for use in light trafficked and loaded applications with a load bearing capacity of 40 tonnes.



Polystorm Lite

Designed for use in landscaped, pedestrian or other non-loaded applications with a load bearing capacity of 20 tonnes.

The Modular Solution to Sustainable Urban Drainage Systems

The Polystorm range of water storage cells are structurally strong, individual modular cells which can be built up to form a structure of any shape or size. The structure can receive rainwater collected from the roof gutter system or surface drains and either releases the water within set discharge limits (attenuation) or, where soil conditions allow, be wrapped in a permeable geotextile and slowly release the water back into the surrounding soil (soakaway).

Every site is different, different ground conditions, planning requirements and design considerations will all have an influence on the sustainable drainage system selected. Polystorm products are flexible enough for any situation, whether soakaway or attenuation systems, trafficked or non-trafficked, deep or shallow excavation, there is a design configuration to suit every site constraint.

Value Engineered Structures

Polypipe Water Management Solutions are the only manufacturer able to offer value engineered structures to create a cost effective bespoke solution. Our team of engineers are able to design Polystorm Lite, Polystorm and Polystorm Xtra as a hybrid system, creating a unique and bespoke solution based on the site constraints and requirements of any given project.

To request a copy of our technical manual call: **01509 217671**
or visit: **www.polypipewms.com**



The Benefits of Polystorm

95% void ratio

- Providing greater water storage capacity and reduced excavation and disposal costs.

Modular units

- Allow flexibility of shape – ideal for shallow excavation systems, narrow strips or use in restricted areas.

Lightweight yet robust

- Excellent health and safety and installation benefits.

Cost effective

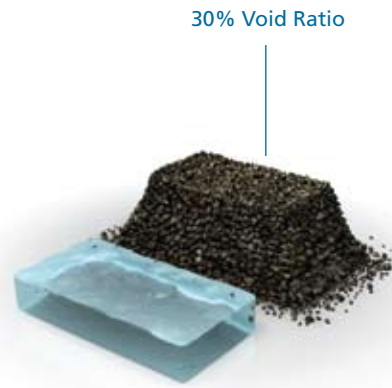
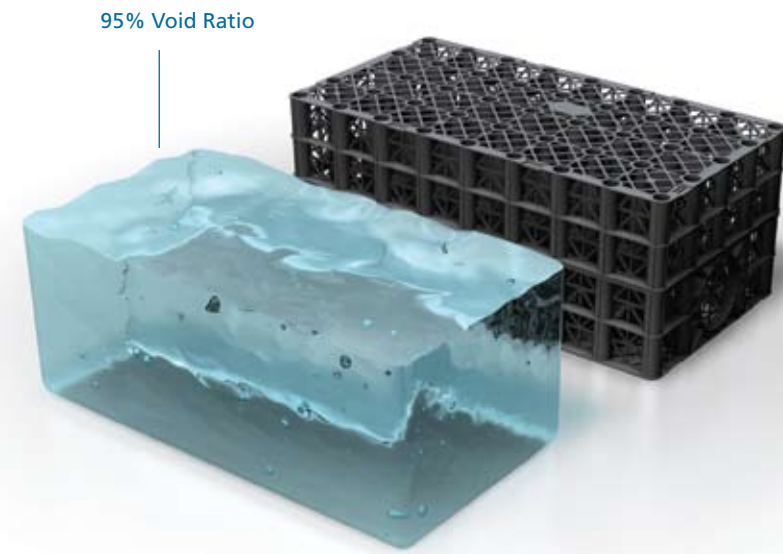
- Especially when used as a hybrid, value engineered system.

Recyclable

- 100% recyclable at the end of its useful life.

Range

- Spans from 20 tonnes per square metre load bearing capacity up to a maximum of 80 tonnes per square metre load bearing capacity.
- The range can be designed for non-trafficked, trafficked or heavy trafficked applications.
- Suitable for both Attenuation and Soakaway systems.
- 50 year design life.
- BBA Approved.



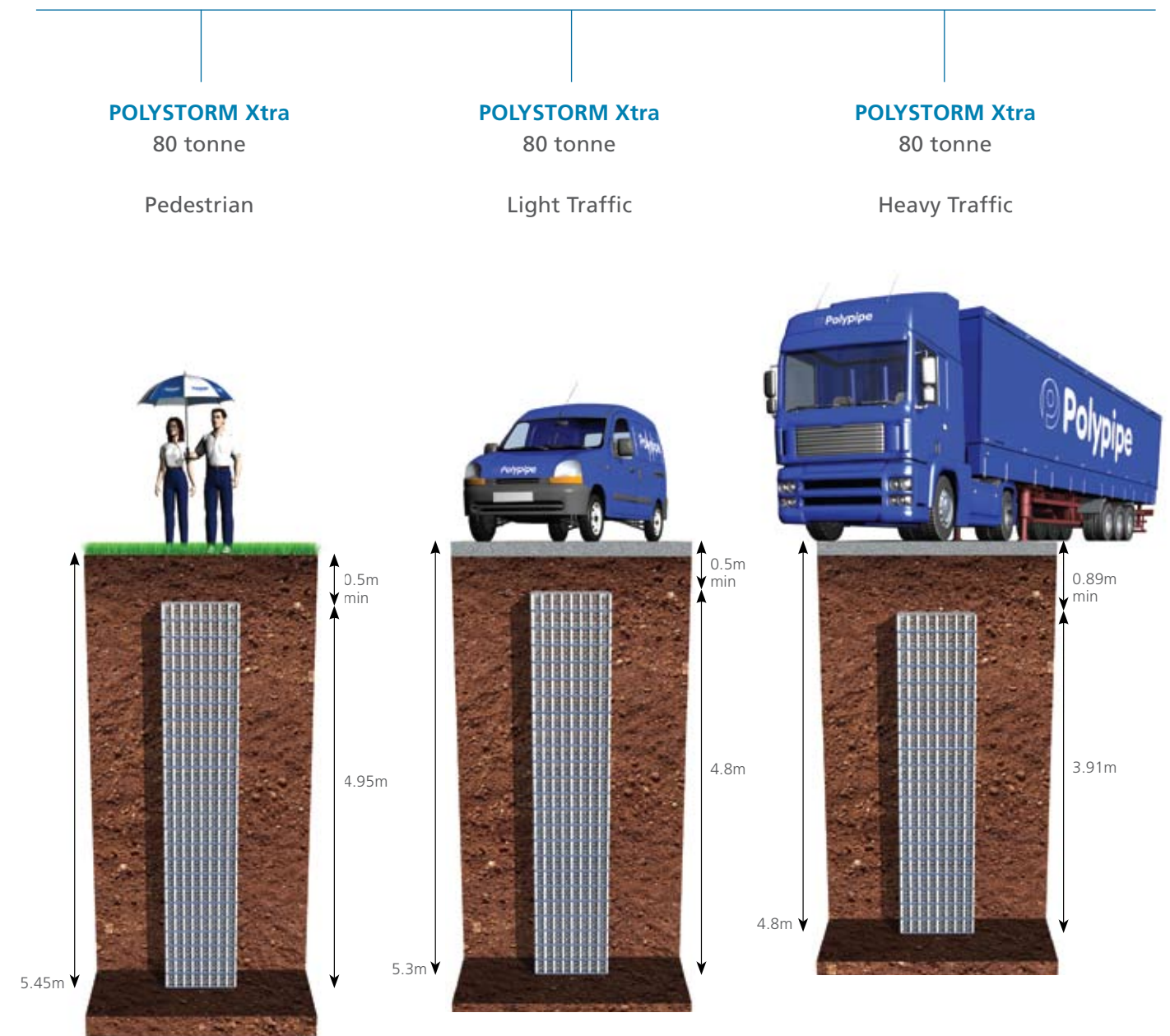
Only a 30% void ratio achieved with traditional rubble filled soakaways compared with a 95% void ratio with Polystorm.

Technical Specification Overview			
Unit Type	Polystorm Lite	Polystorm	Polystorm Xtra
Dimensions	1m x 0.5m x 0.4m high	1m x 0.5m x 0.4m high	1m x 0.5m x 0.21m high
Unit Weight	7kgs	9kgs	6kgs
Loading	Max 20 tonnes per sq metre	Max 40 tonnes per sq metre	Max 80 tonnes per sq metre
Void Ratio	95%	95%	94%

Burial depths of the Polystorm range

The following illustrations indicate the appropriate use of Polystorm modular cell systems. When integrated as a hybrid structure, a complete value engineered solution can be adopted for any given project.

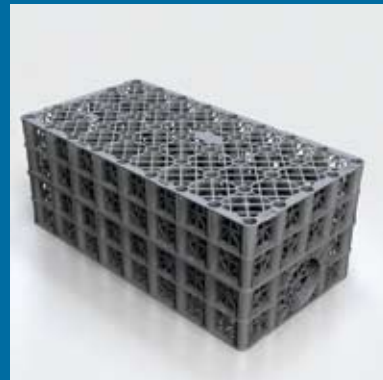
Polystorm Xtra



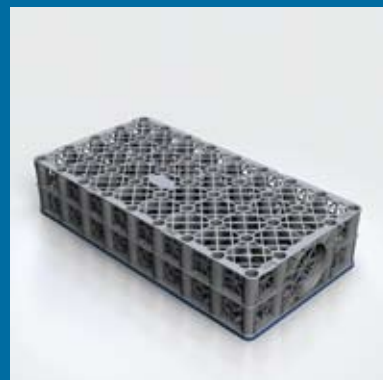
Note: Minimum cover and burial depths may vary depending on load and ground conditions. Please contact Polypipe WMS for further information. All grades of Polystorm units may be used in situations outside of those recommended above, through the use of appropriate protective measures, designed to reduce the imposed loading on the proposed Polystorm structures.



Polystorm Lite



Polystorm



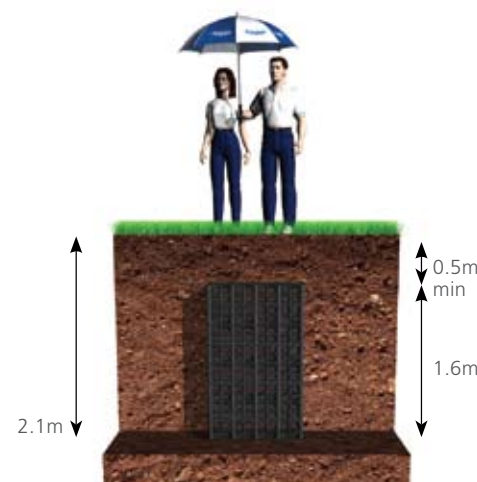
Polystorm Xtra

Polystorm Lite and Polystorm

POLYSTORM Lite

20 tonne

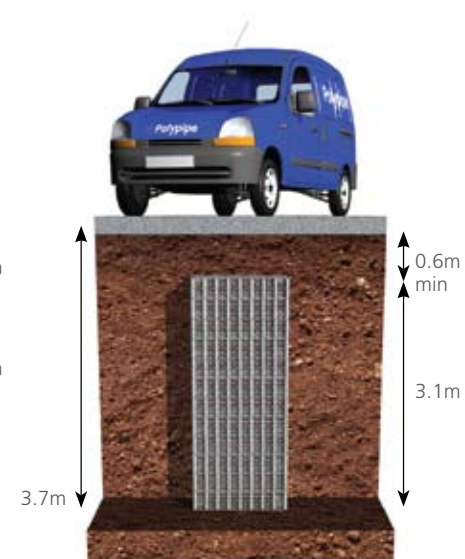
Pedestrian



POLYSTORM

40 tonne

Light Traffic



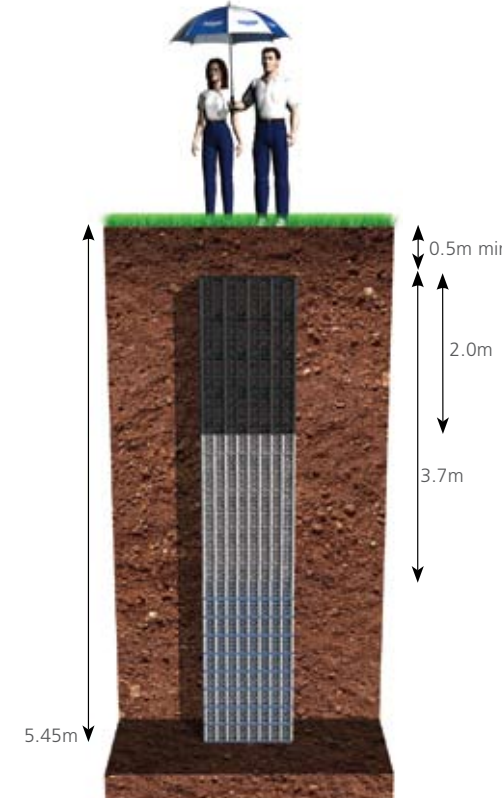
Hybrid Solution

VALUE ENGINEERED STRUCTURES

POLYSTORM LITE POLYSTORM POLYSTORM XTRA

20 tonne

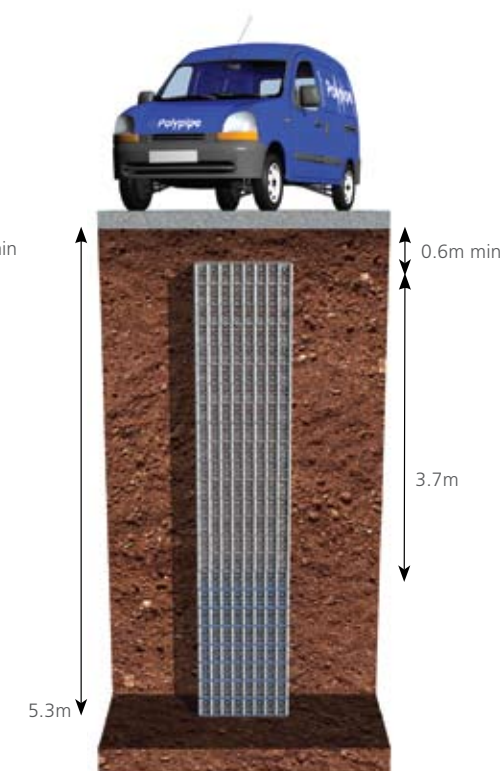
Pedestrian



POLYSTORM POLYSTORM XTRA

40 tonne

Light Traffic



Note: Minimum cover and burial depths may vary depending on load and ground conditions. Please contact Polypipe WMS for further information. All grades of Polystorm units may be used in situations outside of those recommended above, through the use of appropriate protective measures, designed to reduce the imposed loading on the proposed Polystorm structures.

Hybrid Solutions

Polypipe WMS are the only manufacturer who can offer a complete value engineered hybrid system utilising Polystorm Lite, Polystorm or Polystorm Xtra cells to create a bespoke solution based on the load requirements and burial depths for any given project.



For more information on Polystorm or any of our holistic water management solutions call Polypipe WMS on: **01509 615100** or visit: **www.polypipewms.com**

Polystorm Modular Cells



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