## **Pennine**

# EnviroCrate H40

## Loadbearing underground water storage/attenuation system

#### The Advantages of EnviroCrate

- Assembled ready to install with up to 72M3 on a full load
- Available in different configurations to meet specific load requirements
- High load-bearing capability (32tonnes/m2 vertical 11tonnes/m2 lateral) & so suitable for HGV traffic
- Simple and fast to install with 2.5 units per M<sup>3</sup> #
- Modular size of 1m x 1m plan x 400mm height ensures great versatility in both size and shape of storage
- Lightweight units under 25kg removes need for mechanical handling

#### **Uses**

# For permeable infiltration schemes, EnviroCrate units should be wrapped in a non-woven needle punched geotextile which allows water discharge through the subsurface whilst preventing the ingress of soil or sand particles

# For water storage, impermeable geomembrane is used between the geotextile & the crate assembly



#### Why use EnviroCrate?

- Rainwater is "cleaned" by the geotextile surround
- Decreases possibility of flooding during heavy rain falls
- Allows development of difficult sites by using attenuation / water storage #
- Decreases environment problems caused by development #
- For water storage for subsequent use in toilets, watering plants, cleaning vehicles and other grey water usages
- Prevents extreme peak flows to main drainage and water purification systems #

#### Design

- Following assessment of the required water to be stored (see CIRIA C522, R156 & BRE 365) the total number of EnviroCrate units can be calculated using 2.5 /m3 (1000 litres). Decide on the best configuration for the characteristics of the site in question and create the "box" accordingly using the length and width dimensions allowing for a 95% void ratio.
- An EnviroCrate tank needs 75mm sharp sand beneath the tank to protect the geotextile.
  - Also use sharp sand on top and around the sides (Depth of sand between 75 and 100mm depending on the size & sharpness of stones in the backfill)
- Use a silt trap to minimise ingress into the tank and this should be inspected regularly. CCTV/back-jetting points are recommended.

#### PRODUCT DATA

**NOMINAL SIZE CAPACITY UNIT WEIGHT VOID RATIO** COMPRESSIVE STRENGTH LATERAL STRENGTH

#### EnviroCrate400

1000 x 1000 x 400mm 400Litres(2.5 per cu.metre) 19kg 95% >320+KN/m^2 >110+KN/m^2

## Made from recycled polypropylene & can be recycled at end of use

## MADE IN UK TO ISO9001 QUALITY STANDARDS

## Pennine Manufacturing Ltd

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