

Soakaway Crate

Recycled Plastic Water Filtration or Storage Crate

Rainsmart Ellipse Soakaway Crates are **high-quality**, flat-pack supplied, **modular** and **SuDs compliant** filtration or water storage systems which can be installed under a range applications such as landscaped areas, car parks, playgrounds, driveways, pedestrian areas and much more. With a fantastic **compressive strength** from 18 tonnes per m² (when installed horizontally) to 24.2 tonnes per m² (when installed vertically) and able to be **stacked and butted together**, these soakaway crates are ideal for creating large void spaces underground in which water can be stored and reused or collected and dispersed at an acceptable rate for the ground below and around. **110mm pipes** can be connected too.

- RUBBER GRASS MATS
- RUBBER PLAY TILES
- SHED BASES
- STEEL FIXING PINS
- PLASTIC FIXING PEGS
- LAWN & BORDER EDGING
- HOT TUB BASES
- SOAKAWAY CRATES
- GARDEN BUILDINGS
- RUBBER GYM MATTING
- GRASS PROTECTION MESHES
- GRASS REINFORCEMENT MESHES
- GROUND REINFORCEMENT & GRAVEL RETENTION GRID
- GARDEN FURNITURE
- HOT TUBS & SWIM SPAS
- DRIVEWAY DRAINAGE
- LANDSCAPING & WEED CONTROL MEMBRANES




Scan QR code for more info

The Garden Range are dedicated to providing our customers the most accurate details in order for them to make an informed decision on our range. However, there may occasionally be errors or omissions and we reserve the right to amend or remove specifications without notice.

This document was produced in **October 2020** and the reliability and accuracy of this data should be checked by the reader prior to design or purchase.

 thegardenrange.co.uk

 sales@thegardenrange.co.uk

 +44 (0)1246 589021

FLOOD PREVENTION

Our soakaway crates prevent extreme peak flows to maintain drainage and water purification systems

HIGH VOID RATIO

With a void ratio of 95%, there is more room within the crate for water to be stored

STACKABLE

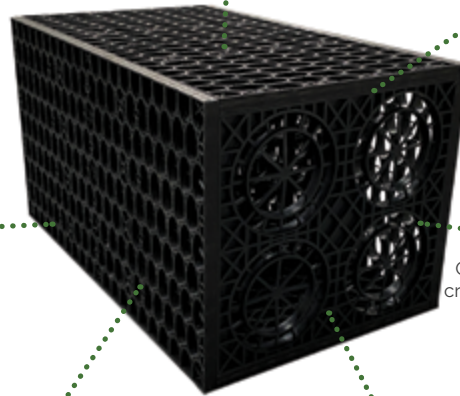
Multiple crates can be stacked or butted together to create a larger area and volume soakaway.

STRENGTH

The Rainsmart Ellipse soakaways are able to withstand from 18 tonnes to 24.2 tonnes per m²

VERSATILE

Our soakaway crates can be used to create effective storage & attenuation systems on a range of projects



HIGH CAPACITY

Our soakaway crates have a fantastic holding capacity and can store up to 125 litres per crate

REUSABLE WATER

The water collected in water storage crates can be reused for domestic and commercial purposes

KEY FACTS

- » Length: **715mm**
- » Width: **400mm**
- » Depth: **400mm**
- » Crates Required For 1m³: **8 Crates**
- » Weight: **6.9kg**
- » Material: **Recycled Polypropylene**
- » Colour: **Black**
- » Storage Capacity: **Up to 125L**
- » Vertical Load Capacity: **24.2 Tonnes per m²**
- » Lateral Load Capacity: **18 Tonnes per m²**
- » Void Ratio: **95%**

APPLICATIONS



WATER STORAGE

Water is stored underground and can be reused to water plants, flush toilets and even in washing machines



WATER DRAINAGE

To prevent flooding, collected water is released at a steady rate to allow the ground to absorb the liquid safely



LANDSCAPED AREAS

Ideal for use under garden and landscapes to collect reusable water and protect the area from flooding



CAR PARKS

The strength of our Rainsmart Ellipse soakaway crates means they can be used under car parks



POOR DRAINAGE

Ideal for use in poor draining areas to reduce the pressure on the surrounding area and reduce flooding



DEVELOPMENT SITES

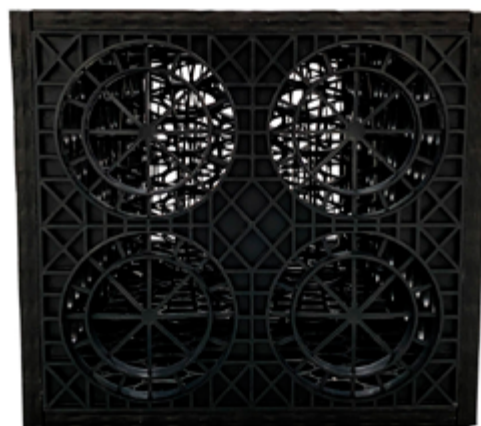
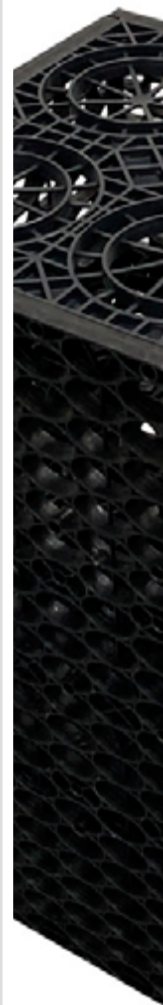
Ideal for meeting SuDs regulations on new developments by reducing the chances of flooding

Installation Instructions

1. To ensure that your soakaway is efficient, it should be sited in sandy or loamy soil. We would not recommend installing a soakaway in clay soil as clay does not allow drainage.
The ideal site is in ground which is at a lower level than that of the building, or at the very least on the same level. You should also ensure that the install site is at least 5m away from your home or any nearby building to avoid any possible undermining of the foundations.
2. When excavating for your crates here are the dimensions you should work to. The crates themselves have a depth of 440mm, but you should allow for 150mm base, side and top fill, plus a minimum additional 150mm top cover for garden applications and 350mm for light traffic applications.
This gives a total depth of 890mm for garden applications or 1090mm for light traffic applications.
These depths allow for a 150mm base layer of sharp sand, 150mm of sand or gravel side fill all around the outside of the crates and above fill of 150mm or 350mm sand/gravel layer depending upon the application.
Try to ensure that the sides and bottom of the excavation are straight and square. If possible we would recommend hiring a mini-digger to carry out the excavation, as digging a hole of this size by hand is a strenuous task.
3. Ensure the base is smooth and level with no sharp protrusions or obstacles. Check that the slopes are cut back to a safe angle or adequately supported and that a safe access is always possible to allow site personnel to enter the excavation.
4. Inspect the base for any soft spots. If there any present, excavate and replace with compacted granular fill material.
5. Lay a 150mm base layer of sharp sand to ensure the base of the excavation is level before laying your chosen membrane sheet ensuring a 150mm overlap. For **filtration** use a woven membrane and for **water storage** use a non-woven membrane.
6. Assemble the soakaway units and install within the void in accordance with the design, specification & any regulations applicable to the installation site.
7. Complete the woven or non-woven encapsulation to the sides and the top of the installation, ensuring that the protection fleece has the required 150mm overlap. The membrane should be welded with double seams and inspected for damage, testing the welds as required.
8. Connect the drainage connections to the installation using proprietary adaptors. Alternatively for infiltration systems, use flange adaptors and attach them to the crate units with self-tapping screws.
9. **(For Trafficked Areas)** Backfill around the installation with a type 1 or 2 sub base, compacting in layers of 150mm in accordance with the Specification for Highway Works.
10. Place 75mm sharp sand protection layer if required over the top of the crates and continue to backfill as follows:
 - A) **Trafficked Areas:** Type 1 or 2 sub base material compacted in 150mm layers in accordance with the Specification for Highway Works.
 - B) **Landscaped Areas:** Selected "as dug" material with a unit size of no more than 75mm compacted to 90% maximum dry density.
11. Finalise the paving construction or landscaping over the soakaway crate system such as creating an X-Grid gravel driveway or car park.

Please Note:

The design of a soakaway depends on a range of factors such as catchment area, consequences of flooding, permeability and foundation design which are different for each site. If part of an extension or new build they should ideally be designed by a civil engineering consultancy & checked by your Local Authority.



PRODUCT CODE	COLOUR	DESCRIPTION	DEPTH (mm)	DIMENSIONS (mm)	PACK SIZE	UNIT WEIGHT (kg)
2419	Black	Rainsmart Ellipse Soakaway Crate	440	715 x 400	1	6.9