

Soakaway Installation & Maintenance

Products Required:

- Soakaway Crate
- Woven Or Non-Woven Membrane

Step 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.

Step 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.

Step 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.

Step 4.

Inspect the base for any soft spots. If there any present, excavate and replace with compacted granular fill material.

Step 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

Step 6.

Assemble the soakaway units and install within the void in accordance with the design, specification & any regulations applicable to the installation site.

Step 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.

Step 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.

Step 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

Step 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.

Step 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.