



HYDROROCK®

future of sustainable water management

ClaySolve Infiltration System

ClaySolve is a sustainable drainage system which incorporates the Hydrorock IR40 Block. This enables effective onsite clay soil infiltration when installed as part of a bespoke design and build package

Based on a highly innovative, mineral wool product from global market leaders Rockwool, Hydrorock ClaySolve provides a unique, highly efficient buffering and infiltration solution for clay soil.

Working with nature is key to unlocking SuDS on clay soil

The ClaySolve system comprises of Hydrorock filled boreholes which are drilled through the clay to provide natural conduits for surface water to rapidly percolate down, and infiltrate into the permeable layer beneath. The bridging contact between Hydrorock Blocks and the permeable layer has the effect of creating a huge unitary natural aquifer, reaching from the surface to deep underground. A range of Hydrorock BD or HD blocks can be installed in a trench directly above the boreholes to provide the system with any required additional buffering capacity.

Enables proper onsite SuDS water management

ClaySolve can be installed as part of a fully integrated proper onsite SuDS water management system. This system combines other Hydrorock SuDS solutions for buffering, infiltration, attenuation and drainage. Retaining water onsite improves critical soil condition and integrity, and prevents the environmentally damaging and costly practice of unnecessarily discharging, handling and treating water offsite.



Totally natural product and a truly green SuDS solution

Hydrorock Blocks are an aquifer and a 100% natural product - soaking up water like a sponge, holding it like a reservoir and releasing it like a watering can. The blocks are ecologically and environmentally friendly, and totally recyclable.

Optimises site land and maximises construction

Hydrorock Blocks are solid and can be installed immediately adjacent to buildings, eliminating the large construction exclusion zones required by big centralised, crated water sumps. ClaySolve's high efficiency and Hydrorock's modularity, enables small sized infiltration systems to be dispersed across the site. This allows developers to optimise land use and maximise onsite construction.

Highly efficient and cost-effective

Hydrorock ClaySolve excavation and installation is small, simple and fast, and provides lifelong maintenance free continued operation to design specification. ClaySolve Infiltration System provides numerous valuable benefits over all current alternatives, and the total installed cost is often significantly cheaper.



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Technical information – Hydrorock ClaySolve System

- Configuration of a ClaySolve System depends on key project site variables: water volume, soil type/ permeability, thickness of clay soil to permeable layer, site area/ layout.
- The test drilling is recommended to ascertain depth, thickness and of the permeable layer.
- Minimum trench excavation requirement 1 m W x 1.3 m D x 5 m L.
- A 325 mm diameter Borehole should be drilled in the middle of the trench through the clay layer and at least one 1m into the permeable layer.
- The Borehole should be filled with Hydrorock IR40 Blocks (cm 100 L x 20 W x 20 H) stacked tightly and vertically end to end.
- Total number of Boreholes required will depend on system capacity and the infiltration rate of permeable substrate.
- The bottom Hydrorock Block should touch the bottom of the Borehole and the top block should protrude 50 mm above the top of the hole at the bottom of the trench.
- The bottom of the trench should be filled with a levelled sand layer 100 mm thick.
- Hydrorock BD440 Blocks (cm 120 L x 100 H x 40 W) should be placed into the trench on the sand stacked tightly together in pairs and abutted end to end.
- Other blocks from the Hydrorock range with varying sizes and densities specified according to system capacity requirements and above surface weight loading.
- Larger systems may require air venting capability to enable required rapid water inflow into the system.
- Systems can be designed with a looped water inflow system, for more rapid inflow and cleansing if the inlet filters are compromised.
- All systems should be fitted with a filtered inlet. There are three sizes depending on volumes.
- The system can be placed around existing infrastructure, such as pipes and cables.
- The system can be dispersed in many shapes and sizes, optimising positioning the site.
- Hydrorock Blocks are ready wrapped in geotextile membrane so installation is very simple and quick with minimal disruption, and excavation need only be as large as the blocks.
- No specialist installation engineering or equipment is required with simple snap-together fittings. No special skills or tools are needed.

