



Beautiful Basements Case Study

Waterproof Concrete Basement, Leicestershire

Client
Waterproofing Designers

Clive Brooks Construction Ltd.
Beautiful Basements

Background

A new house was planned on a large brownfield site, just outside the popular residential town Scraptoft, east of Leicester.

The site had a very high and active water table, creating numerous challenges throughout the build. To ensure the basement, once finished, remained dry, Beautiful Basements designed and installed a dual waterproofing system.

Construction Method

The site was temporarily drained to allow the workforce a clean and dry environment, crucial for waterproof concrete structures. The base was cast using additives within the concrete and a kicker upstand was built as part of the slab to minimise a waterproofing weak point.

The walls were then built in two halves using temporary timber shutters, supported from inside. This allowed the waterproofing concrete to be poured to full height, eliminating any joints through which water can enter the basement.

Between the joints of the two halves of the wall and the kicker, an expanding water-stop was fit to create a water tight seal and prevent water tracking through these unavoidable weak points in the build.

Waterproofing Method

Type B – Integral protection

The concrete in both the walls and floor have an additive which is mixed at the concrete plant, making waterproof concrete. All construction joints and protrusions have expanding water-stop and hydrophilic slurries applied to them.

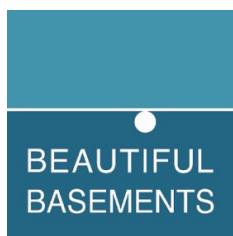
Type C – Cavity Drainage Membrane System

The walls are lined with cavity drainage membrane and then linked via the floor to the sump & pumping station. For this design, the main waterproof concrete slab would fall gently towards the centrally located sump, allowing any water to run via gravity to the sump. The floor is covered with cavity drainage membrane and maintenance points installed.

All waterproofing materials were supplied by Triton Systems Ltd.

Build Programme

4 months



Basement Build
Conversion
Retro-fit
Waterproofing

Beautiful Basements
3d Westbridge Industrial Estate
Duns Lane
Leicester LE3 5LX

T 0116 233 8180
F 0871 433 5174
E info@beautiful-basements.co.uk
W www.beautiful-basements.co.uk