

# CASE STUDY

## Christian Dior, New Bond Street

### STRUCTURAL WATERPROOFING



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Newton Internal and External Waterproofing Installed in Christian Dior's Newest Store on New Bond Street, London.

### Project Details

This project consisted of the internal and external waterproofing of the basement area of Christian Dior's newest and most prestigious flagship outlet in New Bond Street, Central London. The extensive basement area is to be used as stock rooms, changing rooms, and staff and shop floor areas, and a completely dry internal space was therefore required.



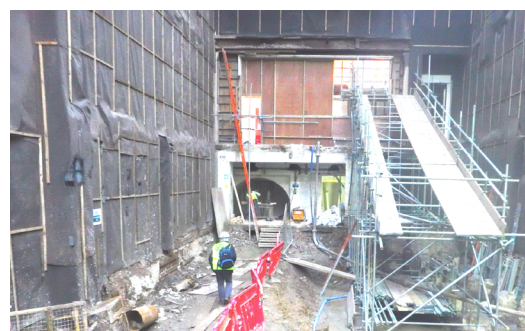
The impressive interior of the prestigious finished store on New Bond Street.

### Methodology

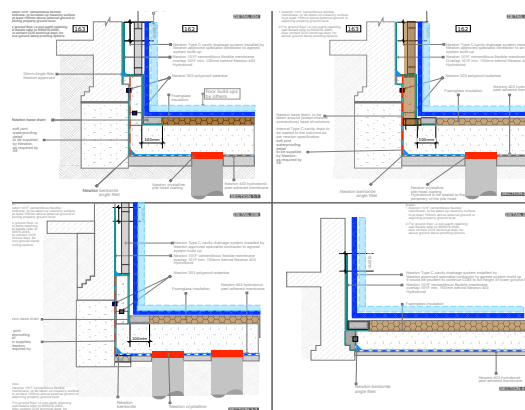
The property line construction between two existing buildings meant that there was a requirement for waterproofing both new and existing structural elements, including pile caps, underpinning, a new reinforced concrete slab, the existing foundations, and also existing vaulted areas at the front of the building which extend below New Bond Street.

Because a completely dry internal environment was required, (defined as Grade 3 by the BS 8102:2009 Code of Practice for The Protection of Below Ground Structures From Water From The Ground) the proposal put forward by design specialists [G05](#), in consultation with Newton, was a combination of Type A and Type C waterproofing systems. Due to the fact that the build was between the flank walls of two existing structures, the Type A (barrier or tanking) system comprised of a combination of the hydrophilic, fully-bonded [Newton 403 Hydrobond](#) membrane pre-applied below the new concrete slab, and was linked to the cementitious, flexible [Newton 107F](#) membrane, which was applied to the internal faces of the walls and the prepared internal areas of the vaults.

Following the application of the Type A system, a [Newton System 500](#) Cavity Drain membrane system (Type C) was applied to the internal wall and floor areas by Newton Specialist Basement Contractor [Advanced Preservations Ltd](#), who also guaranteed the work. The system included perimeter drainage using [Newton Basedrain](#), and two [Newton Titan-Pro](#) pumping systems. The under-pavement vaults were lined internally with the Newton 500 system.



Below ground level at construction stage on the Christian Dior project site



Some of the detailed technical drawings, as supplied by G05.

### Results

Not only was continuity achieved with the waterproofing systems across the numerous different building mediums and scenarios in the below ground areas, but the waterproofing system that was designed and installed also conformed to the recommendations of BS 8102:2009 for combined waterproofing protection where leakage is unacceptable.

The internal areas were also successful in achieving environmental Grade 3 with regard to their degree of water tightness, meaning that they will be entirely fit for purpose and use by both Christian Dior staff and customers.

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## Featured Products

### NEWTON 403 HYDROBOND

Hydrophilic Fully Bonded Membrane for Raft and Wall Waterproofing

Newton 403 HydroBond is a very high performance composite sheet membrane that features a locking fleece to one side and a polymer hydrophilic coating to the other side. It is suitable for application under reinforced concrete rafts and pre-application to reinforced concrete retaining walls.

When placed below the new raft or against the wall shuttering, the poured concrete engages into the locking fleece so that the membrane is completely locked in and monolithic to the concrete. This ensures that if a leak did occur it cannot track to the construction joints. The hydrophilic coating seals small holes that may be accidentally formed during fixing of the reinforcing steel or the pouring or compaction of the concrete.

Newton 403 HydroBond is supplied in rolls of 1m x 20m.

### Newton System 400 External Waterproofing



Newton 403 HydroBond

### NEWTON SYSTEM 500

Maintainable Cavity Drain System Comprising Waterproof Membranes, Drainage, and Pumps

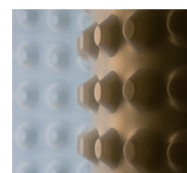
The professional's "waterproofing system of choice", Newton System 500 is an internally applied waterproofing system based upon Newton's extensive range of cavity drain membranes, drainage conduits and sophisticated pumping and control systems. It is a maintainable system, so complies with the BS 8102:2009 Code of Practice for The Protection of Structures Against Water from the Ground.

Newton recommends that our structural waterproofing systems are installed by one of our Nationwide Network of Newton Specialist Basement Contractors (NSBC)

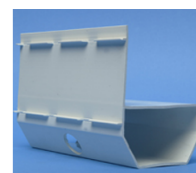
NSBCs have been trained by Newton and can offer full professional indemnity on design and insurance backed guarantees on the installation.



### Newton System 500



Waterproof  
Membranes



Drainage



Pumping System



Water Pumps

Cavity Drain Waterproofing

### NEWTON 107F

Cementitious Flexible Waterproofing Membrane

Newton 101F is a two-component, cementitious, polymer-rich coating for the waterproofing and protection of concrete and masonry. As a spray-applied membrane, it is ideal for large projects, whilst its flexible properties make it especially capable where the structure has both masonry and concrete elements.

Newton 107F is supplied in 30kg packs, containing the Part A and Part B components already measured and ready to mix.

### Newton System 100



Newton 107F