



Internal Basement Waterproofing

Newton System 500

Cavity Drain Membrane System

Newton System 500

Basement Waterproofing

The professional's '*basement waterproofing system of choice*', Newton System 500 is an internally applied Type C waterproofing system, incorporating our range of cavity drain membranes, drainage systems and pumping systems.

Basement Waterproofing Overview

Newton System 500 is a range of cavity drain membranes, pumps, pumping control panels and drainage provision. The system works by placing designed maintainable depressurisation voids at known weaknesses in the structure so that ingressing water is captured and diverted out. It meets the recommendation within the British Standard BS8102:2009 Code of Practice for Protection of Below Ground Structures Against Water from the Ground of a maintainable waterproofing solution.

Newton System 500 Components

- **Cavity Drain Membranes**
Range of BBA approved membranes
- **Drainage System**
To collect and manage water
- **Pumping System**
Newton pumps and sumps
- **Pump Control**
A range of sophisticated alarms and control panels to manage the pumps

Why Newton?

- Established in 1848, Newton is the market leader and pioneer of cavity drainage membrane technology
- Maintainable waterproofing solution, fully compliant with BS8102:2009
- Used in London Underground stations, the British Museum, and Royal and Ancient Golf Club of St Andrews
- Ideal for Listed Buildings as Newton System 500 is deemed 'reversible'
- As an independent company, we are able to source the best products from a variety of manufacturers
- Full technical support, including in-house CAD service and BIM objects
- Insurance backed guarantees available when installed by our nationwide Newton Specialist Basement Contractors
- Ideal for waterproofing existing buildings and new-build structures
- Often specified as a remedial solution where other products have failed

Complete Waterproofing Systems

Newton offer complete waterproofing systems to each type identified by the BS8102:2009

Newton System

100

200

400

Protection against water ingress by a 'barrier membrane' applied to the structure

Type 'A' Protection

Newton System

300

'Structurally integral' joint seals and maintainable interjoint protection against water transmission

Type 'B' Protection

Newton System

500

An internally maintainable 'drained system' with dedicated ground water discharge management

Type 'C' Protection

John Newton Company History

1848 established in London

Specialist supplier of plasterer's hair and ancillary products for the construction industry

Company timeline



John Newton
circa 1848

1932

Designed and produced the first physical damp proof membrane 'Newtonite' for internal and external damp proof applications throughout the UK

1940–1945

Business put on hold during World War II

1945–1983

Newtons damp proof membrane business flourished as UK housing stock was upgraded to habitable accommodation with Newtonite. During this period over 5 million metres of Newton membrane sold

Cavity Drain Membrane Solution

The Proven and Trusted Basement Waterproofing System

"I believe that due to your waterproofing system I will be able to at any point sell my house and that the waterproofing system will actually add value" – Detective Sgt Maria Banks, Oxford Police Station (Newton System 500 was installed by a Newton Specialist Basement Contractor in this property prior to extensive flooding throughout Oxfordshire)

Specifier Services

Newton Waterproofing Systems provide a range of specifier services to aid the correct specification of our products:

- Technical drawings supplied in .dwg (AutoCad) and .pdf (Acrobat)
- 3D details and product representation to assist in visualising the concept
- NBS Create and NBS Building used in-house to produce bespoke specifications tailored to your project
- Drawings available on FastrackCAD
- Product information listed on NBS Plus
- Members of IHS where all our specification information is available
- RIBA CPD, offering specifiers and designers double-points CPD seminars at their premises or via the members area of our website
- Product datasheets and MSDS available on the website

Technical Support



A typical technical drawing of Newton System 500 being applied to a structure



Technical drawings and specifications are available via the FastrackCAD, IHS and NBS Plus platforms



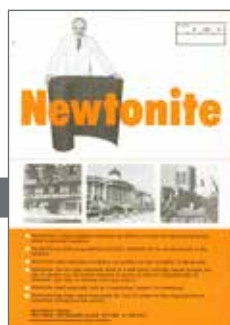
Newton membranes are BBA certified



BIM objects for insertion into your project

Guaranteed Installation

Newton Specialist Basement Contractors provide the client with a guarantee for both the installation and the design of the waterproofing system. It is a recommendation of the British Standard that a waterproofing designer be part of the project design team and many of our contractors are able to fulfil this requirement. All our NSBCs have completed our strict membership criteria and are monitored and trained on a regular basis.



Newtonite brochure 1970's

1984

Current Chairman Christopher Newton invented Newlath – HDPE dimpled sheet membrane with heat welded nylon mesh

1986–2009

Newton develop Newton System 500 full basement waterproofing system. It swiftly becomes one of the leading methods of basement waterproofing in the UK

Today

Newtons product range continues to grow to encompass products to deal with all aspects of commercial and domestic structural waterproofing, damp proofing and packaged sump and pump stations



Newton waterproof membranes are the highest quality available

Wentworth, Surrey

Waterproofing a New-Build Basement

This large new-build property in Surrey had a very large basement area which needed to be waterproofed to meet BS8102:2009 requirements, the British Standard for the Protection of Structures Against Water From the Ground.



Data file

Overview

Sector New-build waterproofing

Client Aligalvin Homes Ltd

Products used

- Newton 508 membrane
- Newton MultiPlug
- Newton Basedrain
- Newton Titan-Pro White Pumping System

Key project factors

- New-build basement
- Quick to install so no delay in project development
- Newton Specialist Basement Contractor provided guaranteed installation
- A fully maintainable system - as recommended by BS8102:2009

Project description

When designing a waterproofing solution, it is essential to consider the implications of the BS8102:2009 waterproofing regulations. The standard advises that the waterproofing solution should be robust enough to expect a head of water against the structure. In addition, BS8102:2009 requires that all waterproofing is maintainable and repairable.

The Newton Specialist Basement Contractor (NSBC) was involved in the project from design stage, as per BS8102 recommendations. Newton 508 Cavity Drain Membrane was applied to all internal walls, and ingressing water was collected into the Basedrain channels throughout the wall/floor junction and pumped out to safe drainage using the Newton Titan-Pro pumping system.

The NSBC offered a 20-year guarantee and the property is completely protected against water ingress.



Newton 508 is one of the most frequently specified cavity drain membranes in the UK

Royal Courts of Justice

Converting a Damp Basement Into a Bar and Rest Area

This Grade I listed structure had a labyrinth of unused basement areas. With space at a premium, a large part of the brick basement area was converted into habitable space. Newton System 500 was quick to install and sympathetic to the structure, making it the ideal waterproofing solution.



Data file

Overview

Sector Historic refurbishment

Client The Crown Estate

Products used

- Newton 508 Mesh
- Newton NuSeal Plugs

Key project factors

- Listed building
- Original features retained
- Newton 508 Mesh fitted to follow curvature of arches
- Quick application
- Maintainable system so complies with BS8102:2009

Project description

The Newton System 500 waterproofing system was designed and installed by a Newton Specialist Basement Contractor with Newton 508 Mesh chosen as the waterproofing membrane. The use of Newton 508 Mesh meant that costly and damaging surface preparation was not required. If required, the system could be removed to restore the vaults to their original condition in accordance with Listed Building requirements. The Victorian 'Bird Beak Arches' were sympathetically waterproofed whilst retaining the original features of this historic property.

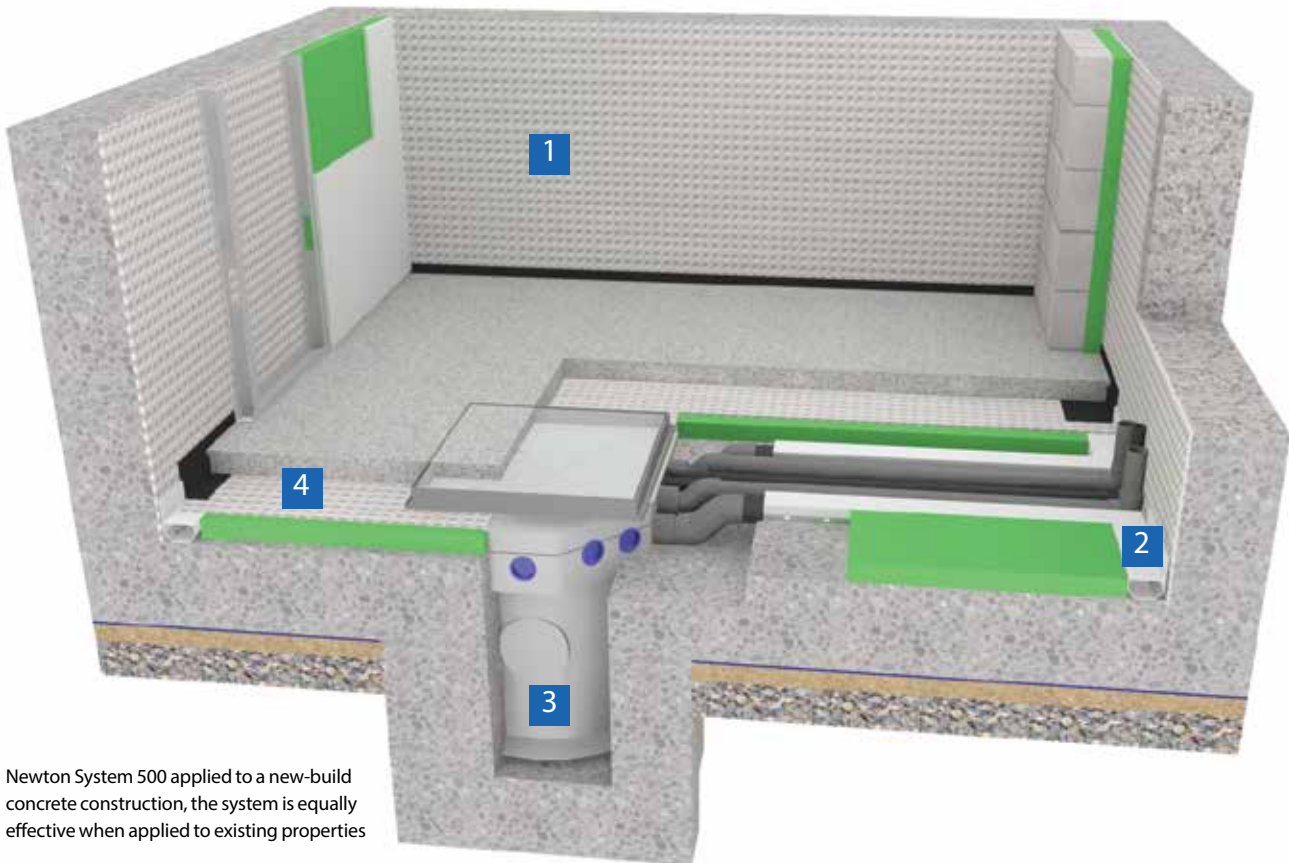
The vaults are now fully refurbished and the space used as a rest area giving a habitable area to Grade 3 of the environmental table within BS8102:2009. Following the success of this project, our Newton Specialist Basement Contractor was commissioned to complete a second area to the same specification.

For technical information and product data sheets please visit our website: www.newtonwaterproofing.co.uk

Newton System 500 Explained

Four Steps to a Dry Basement

Newton System 500 is not only the safest form of waterproofing available, but one of the easiest to specify and use. A guaranteed dry basement or cellar is just four easy steps away.



Newton System 500 applied to a new-build concrete construction, the system is equally effective when applied to existing properties

1 Wall Membrane

Choose an appropriate wall membrane to suit your wall finish. In this example, Newton 508 has been chosen for the walls and is shown with both independent metal frame dry-lining and concrete block wall coverings.

2 Drainage System

Choose your preferred method of water collection. Here Newton Basedrain is sat above the slab adjacent to a spacer of 50mm of closed cell insulation.

3 Sump System and Pumps

Decide on the most suitable method for removing the water. Here a Titan-Pro sump system collects water from the Basedrain drainage system. The pumps would be chosen depending on factors such as the pumping head and the type of water collected.

4 Floor Membrane

Choose the correct floor membrane for your finishes and floor loadings. Newton 508 is shown here with a 65mm screed above.

Combination Waterproofing Systems

BS8102:2009 recommends that consideration be given to the use of combined protection where:

- the likelihood of leaking is high
- the consequences of leakage is unacceptable
- additional vapour checks are necessary

Newton Waterproofing Systems offer solutions for all types of waterproofing to BS8102:2009. We would be delighted to assist you with your waterproofing design to ascertain which products and systems are most suitable for your project.

Newton Waterproofing Systems

Protecting Buildings Since 1848



System 100 Cementitious Products

Newton System 100 is a comprehensive portfolio of cementitious products which complement and complete our basement waterproofing designs in areas where Newton System 500 would not be suitable. Such details include – lift shafts, flat soffits and externally to retained slabs and ring beams.

System 200 Deck and Roofing

A complete range of externally applied elastomeric high performance liquid membranes and ancillaries for balconies, terraces, flat and inverted roofs, podium decks, car parks and reservoirs. This portfolio of seamless and robust liquid membranes gives specifiers and specialist waterproofing contractors a quick and cost effective solution to protect external areas from water ingress.

System 300 Concrete Structures

Newton System 300 is a range of products, some unique to Newton, used to waterproof construction joints and movement joints of retained concrete structures so that they become integrally waterproof – defined within BS8102:2009 as Type B waterproofing.

System 400 External Waterproofing

Newton System 400 comprises a range of composite membranes that protect the primary waterproofing membrane from impact and water pressure, diverting water down to a perforated land drain for removal.

System 500 Cavity Drain Waterproofing

The professional's 'waterproofing system of choice', Newton System 500 is an internally applied waterproofing system based upon our range of cavity drain membranes, drainage conduits and sophisticated pumping and control systems. Newton System 500 works by placing designed maintainable depressurisation voids at known weaknesses in the structure so that ingressing water is simply captured and diverted out of the property.

System 600 Flooring Membranes

Newton System 600 is a range of HDPE and HDPP flooring membranes offering a complete damp proof solution for both commercial and domestic flooring applications. As well as providing protection from dampness within the floor, our membranes 'de-couple' the floor finish from the substrate preventing damage due to substrate movement and cracking. Newton damp proof membranes can be installed over existing and 'green' concrete. Also a popular solution for dealing with inherent hydrocarbons or ground gas.

System 700 Liquid Applied Floor Coatings

System 700 is a range of liquid applied protective and decorative internal flooring products. These products are fast curing and available in a variety of colours, and are typically used for the refurbishment and protection of commercial and domestic floors.

System 800 Damp Proofing

Newton System 800 is a range of BBA approved damp proof membranes and ancillaries which are quick and clean to install offering a permanent solution for damp proofing walls. The meshed membranes provide a firm key ready for plaster, render or dot & dab plasterboard. The un-meshed Newton 803 is used where insulation requirements dictate the use of a timber or steel frame ready for plasterboard.

System 900 Liquid Primers and Sealers

High performance range of liquid applied products, used in conjunction with System 200 and 700 liquid membranes. They act as priming agents for a variety of substrates

Sump and Pump

Extensive range of submersible pumps and pumping control panels and alarms. We supply pumps for the control of clean ground water, grey water, effluent or sewage. Newton can also provide a wide range of specialist submersible pumps and sump chambers which can be tailor-made for site-specific conditions.

Double Points RIBA Approved CPDs

Newton Waterproofing Systems offer a double points RIBA approved CPD focusing on the different forms of structural waterproofing systems available and how to waterproof to achieve the environment grade required within BS8102:2009. The CPD includes a focus on new-build (concrete) structures and combination waterproofing systems.

A Newton technical representative can come to your offices to present the CPD or alternatively you can watch the interactive presentation online. We will then arrange a follow up with our technical team to discuss any live waterproofing projects and share technical drawings so we can offer best advice on designing the most suitable waterproofing solution. Contact us for your exclusive login for the CPD.

"On behalf of The British Board of Agrément I would like to thank you for the quality of your CPD training provided to a number of technical Project Managers and other staff members."

Mike Wiseman Phd

British Board of Agrément

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NEWTON

WATERPROOFING SYSTEMS

John Newton & Co Ltd, Est 1848, is the UK's leading independent supplier of structural waterproofing systems, water control, drainage products and damp proofing membranes.

Newtons offer the best available, BBA certificated solutions for waterproofing and damp proofing applications in new-build and refurbishment projects. Our range of structural waterproofing systems, including cementitious products, deck and roofing membranes and liquid applied floor coatings enable us to offer full waterproofing solutions for a wide variety of projects.

Newton Waterproofing Systems control and remove unwanted water from leaking tunnels and underpasses, railway arches, wet basements, flooded cellars and damp vaults to make warm habitable areas or areas suitable for dry storage in both commercial and domestic projects.

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