

CASE STUDY

Hatfield House

STRUCTURAL WATERPROOFING



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Waterproofing a striking new water sculpture at the historic Hatfield House, Hertfordshire

Project Details

This project consisted of waterproofing a magnificent new water feature, designed by one of Britain's most prolific sculptors, Angela Conner. The vast kinetic water sculpture uses the movement of the water to unveil a gold ball beneath. The base is approximately 10 metres in diameter, so it was essential that it was fully waterproofed for the project to be successful. The Head of Building Services contacted Newton Waterproofing Systems for a solution.

Methodology

Newton Specialist Basement Contractor Dry Waterproofing undertook the project to waterproof the fountain base. The slab had been prepared and removed of dust and laitence, whilst Newton 308 Stopaq pipe sealant was also used to seal the pipe penetrations within the pit.

Newton 903-P Primer was applied using rollers directly to the damp slab. Fifteen minutes later and the floor was ready for the waterproofing coat. Newton 103-S liquid waterproofing membrane was then applied via spray using a Graco 7900 spray machine. The upstands of the fountain and the lower pit walls were sprayed, and whilst the product was still wet, a trowel was used to fill the small honeycombs with product.

A second spray application was then applied and cast with dry kilned sand to provide a key. The Newton 103-S application was completely dry the next day. Newton commissioned a specialist polyaspartic coating as a finish specifically for this project.

Results

The combination of Newton 903-P Primer and Newton 103-S for this project was ideal. The primer is easy to work with and goes off quickly. One of the great benefits is that it can be applied to very damp surfaces - which means it vastly supersedes other products on the market. Newton 103-S could be sprayed very effectively to vertical applications.

Testimonial

"Newton 903-P primer was excellent to work with and as a single component product the process meant a very quick application. The fact that you can apply it on very damp surfaces puts it in a league of its own. Newton 103-S is a very versatile product which we were able to apply by hand and spray machine. We chose to spray 103-S with great success, as it is fantastic for vertical applications.

Due to the prestige of the project, time was always against us, deadlines had to be met. This complete system achieved outstanding drying times and allowed a seamless installation from start to finish in no time at all."

- Vince Tansey, Dry Waterproofing



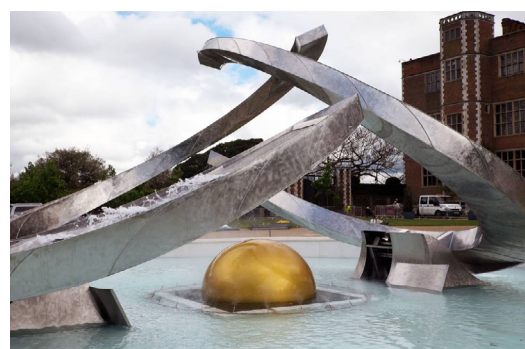
The finished fountain, named 'Renaissance' at the North Front of Hatfield House



Application of Newton 903-Primer to the 10m diameter fountain base



Newton 103-S was spray applied to the base and the upstands



The finished sculpture was created by renowned British artist Angela Conner

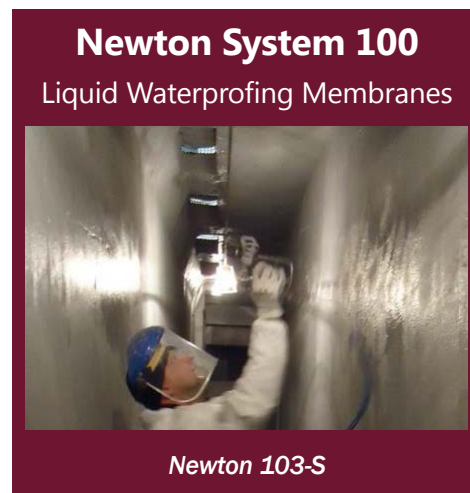
Featured Products

NEWTON 103-S

High Performance Liquid Waterproofing Membrane

Newton 103-S is a two component, thixotropic, cementitious modified polymer waterproofing membrane with high adhesion. It is designed for the internal and external waterproofing of concrete and steel elements of water retaining and water resisting structures such as reservoirs, water tanks, below ground structures, podium decks, flat roofs, balconies, parking areas and terraces.

Capable of resisting extremely high positive and negative water pressure, Newton 103-S forms a hard, highly alkaline coating with a degree of elasticity which has greatly enhanced chemical resistance and so is particularly suited for the protection of concrete within sulphate contaminated ground. It has excellent resistance to the ingress of acid gases, moisture and chlorides to enhance the durability of reinforced concrete and protect highway and coastal structures from chloride attack.



Newton System 100

Liquid Waterproofing Membranes

Newton 103-S

NEWTON 903-P

Primer

Newton 903-P is a modified styrene/acrylic copolymer primer for concrete that is applied prior to the installation of Newton's range of high performance cementitious waterproofing membranes, levelling compounds, concrete repair and floor coating products, minimising the risk of out-gassing from both internal and external concrete substrate.

Extremely quick and simple to apply by broom, airless spray, roller or squeegee, Newton 903-P can be applied over new and damp concrete and is soon ready for the application of the Newton membrane above, providing for continuity of work even during the wetter months of the year when most membrane systems cannot be used.



Newton System 900

Primers, Preparation & Reinforcement

Newton 903-P

SPECIALIST TOP COATING

Newton Waterproofing Systems commissioned a specialist custom-colour polyaspartic top coating specifically for this project.

Newton are able to deliver products for most applications and where a very specialist coating is required and we do not have within our range, we will formulate specifically for the project and perform tests to ensure suitability for the end requirement.



Specialist Top Coating

Commissioned by Newton Waterproofing