



Sealing Movement Joints in a With Concrete Injection Resin

The Project

At this new-build shopping centre in Shepherd's Bush, West London, the new underground car park was experiencing high levels of water ingress through two movement joints that had failed.

Newton Specialist Contractor [ASF Waterproofing](#), who are specialists in injection resins and structural repair work, were therefore called in order to provide a quick solution and fix the leaking joints.

The Solution

Following an initial investigation, the technical team from ASF decided to use the 5-part acrylic rubber sealing resin [Newton 324-SR](#) to seal the joint, as it reacts to form a very durable and flexible seal that exhibits exceptional adhesion, making it ideal for movement joints.

ASF began by drilling holes at angle into the concrete, and at regular intervals for the 10mm injection packers above the joints. The injection packers were then fitted to each hole, and foam backing rod was used to temporarily block the joint and prevent uncured resin from escaping as it is injected.

The five components of the 324-SR are mixed to make two solutions, whilst the curing time of the resin can also be adjusted by changing the quantity of initiator used. The resin was then injected through the packers and into the joint using a two-component stainless steel pump.

Finally, once the resin was cured and the joints were effectively sealed, ASF ground back the surface of the concrete to either side of the joints and applied [Newton 106 FlexProof](#), a flexible liquid waterproofing material, to provide a final protective seal and finish the job.

The Result

With two leaking movement joints in a finished structure, the client required a swift resolution to get the area back into use quickly. With the benefit of Newton's advanced resin and waterproofing products, ASF got to site and delivered the sealed joints within the client's tight timeframe.

| | |
|--------|-------------------|
| NSBC | ASF Waterproofing |
| Client | Shopping Centre |



1. Grinding paintwork from concrete to create a good key for the Newton 106 FlexProof



2. Drilling a hole for a 10mm injection packer above the movement joint that needed sealing

Movement Joint Waterproofing, London

Resin Injection Leak Sealing

"One of the key contributors to the success of this project was the Newton 324-SR injection resin, which gave us the necessary control and flexibility when it comes to the reaction and curing times of the resin in order to create a good seal in the joints.

The staff at ASF Waterproofing have got decades of resin injection experience between us, so to be able to pair this experience and knowledge of site conditions with a good product that delivers on what it promises, gives us the ability to do an excellent job for the client."

*Shaun King, Director, ASF Waterproofing
Newton Specialist Contractor*

The Products

106 FLEXPROOF

An advanced, single-component liquid waterproofing material which forms an elastomeric polymer membrane that is rainproof in minutes and flexible enough to handle severe building movement and deformation.

No primer is required to apply Newton 106 FlexProof, which has excellent adhesion characteristics. It can also be used in sub-zero temperatures and to damp substrates, and once cured the product is both 100% waterproof and vapour permeable.

324-SR INJECTION RESIN

High performance, five-part resin that reacts to form a very durable and flexible acrylic-rubber that has exceptional adhesion, ideal for sealing leaks in structures where settlement or movement is expected.

The reaction speed of the resin can be adjusted from 18 seconds to 18 minutes, and coupled with its low viscosity this guarantees deep penetration into fine cracks. The cured resin is also hydrophilic, meaning that it swells in contact with water, whilst its moisture retention characteristics means that it does not dry or shrink, even under the influence of temperature changes and seasonal water level fluctuations.

Newton Specialist Basement Contractors



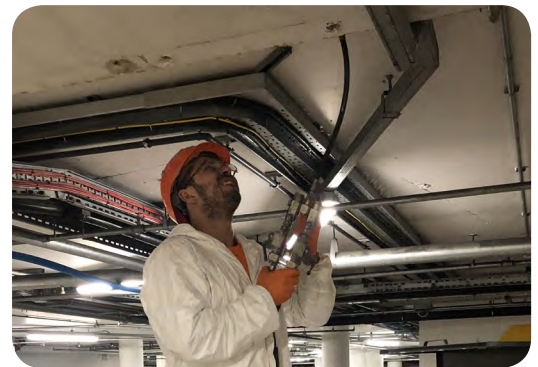
Newton recommends that our structural waterproofing systems are installed by one of our nationwide network of [Newton Specialist Basement Contractors \(NSBC\)](#). Trained by Newton, NSBCs offer full professional indemnity on design, and insurance backed guarantees on the installation.



3. The movement joint is filled with a foam backing rod and the packer is inserted behind ready to inject



4. Newton 324-SR resin, ready to inject using the two-component stainless steel pump



5. Injecting Newton 324-SR via the 10mm injection packers into the movement joint



6. Using the Newton 324-SR resin, ASF Waterproofing were able to get the job done quickly and efficiently.