

FLAT ROOF WATERPROOFING, SURREY

Replacing Failed Roof Waterproofing on a Potable Water Tower

BETCHWORTH WATER TOWER, SURREY

Originally built in the 1920s, the Betchworth Tower freshwater storage tank is vital to supplying clean water to residents in Box Hill and the surrounding area.

A crucial part of the [SES Water](#) infrastructure in Surrey, an investigation in 2025 found that the roof of Betchworth Tower needed significant structural repairs, and a full replacement of the flat roof waterproofing system.

PROJECT SCOPE

Work began in January 2026, led by [Thorne Civil Engineers](#), to deliver repairs to the concrete roof structure.

A specialist flat roof waterproofing system was therefore required to deliver long-term protection and performance.

Newton Specialist Contractor [Concrete Remedial Systems](#) (CRS) were appointed to provide a solution utilising [Newton PolyMaxx HA](#), a seamless, hand-applied, flexible and reinforced polymer resin system for waterproofing decks, flat roofs and balconies.



The impressive Betchworth Water Tower in Surrey

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THE SOLUTION

CRS first removed the failed waterproofing and made repairs. This included sealing cracks, repairing damage, then grinding and jet-washing for a stable and clean concrete substrate. Once prepared, PolyMaxx HA Primer was applied to ensure a strong adhesive bond.

The first coat of PolyMaxx HA Resin was then applied in sections over the large area, with the PolyMaxx HA Mat embedded into the resin for reinforcement and durability.

The first coat cures in just 30-60 minutes, after which a second coat of PolyMaxx HA Resin was applied to complete the build-up of the hybrid-polymer resin system.

Finally, as the flat roof would need to receive foot traffic in future, the CRS installers cast sand into the wet surface of the PolyMaxx HA System to give it an anti-slip finish.

FLAT ROOF WATERPROOFING

PolyMaxx HA is ideal for waterproofing existing reinforced concrete flat roofs because it:

- Prevents water migration beneath the membrane
- Has excellent adhesion to primed concrete
- Provides long-term crack-bridging and accommodates natural movement
- Performs reliably on substrates with surface irregularities, historic repairs or varied conditions

THE RESULT

The winter weather posed challenges, but CRS progressed swiftly with the installation thanks to the system's versatility. The CRS installers are also certified PolyMaxx HA installers, meaning the system is supported by a 20-year warranty.

As a result, Betchworth Water Tower has been restored to full functionality, enabling SES Water to return it to action and ensure their customers receive a resilient water supply.

TESTIMONIAL

"We engaged CRS to undertake concrete repairs and waterproofing of a water tower on behalf of a valued client as part of a design-and-build project. The scheme required close coordination between all parties to develop and implement a robust solution that would enhance the long-term durability of the structure."

Despite a number of project constraints, CRS went above and beyond to deliver an effective solution and successfully completed the works within the required timeframe.

Our thanks go to Richard and the entire team for their professionalism, hard work, and valuable contribution throughout the project."

Chris Williams, Contracts Manager
Thorne Civil Engineers



The large concrete roof needed extensive preparation



Wall fillet trims and primer were applied prior to the resin



The first coat of PolyMaxx HA, quickly applied by roller

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FEATURED PRODUCTS

PolyMaxx HA - Specialist deck waterproofing system. BBA approved, fully bonded, high-performance seamless waterproofing for roofs (including blue/green roof structures), balconies, podium decks and structural slabs.

Built around the PolyMaxx HA liquid-applied membrane, the system delivers durable, flexible, and rapid-curing waterproofing system for both new and existing substrates.

PolyMaxx HA is suited to both new and existing reinforced concrete because:

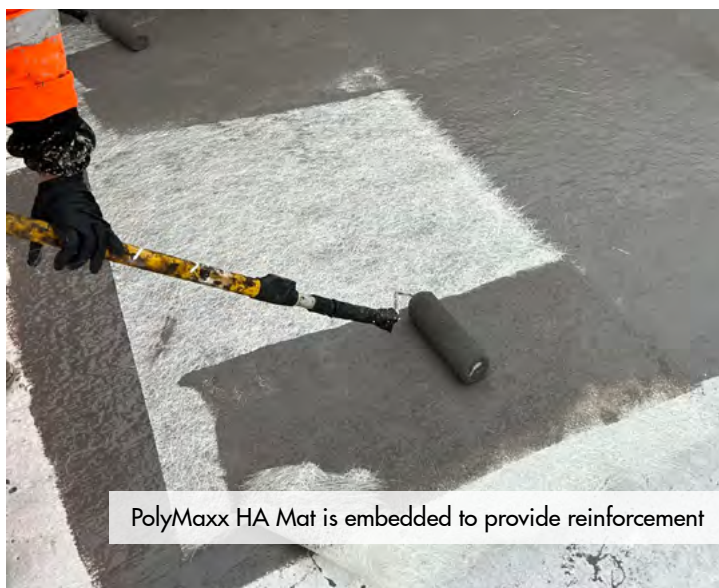
- The fully bonded system prevents water migration beneath the membrane
- It has excellent adhesion to primed concrete
- Reinforcement provides long-term crack-bridging and accommodates slab movement
- Performs on substrates with irregularities, historic repairs or varied conditions
- Rapid curing (30–60 minutes per coat) enables efficient sequencing
- Durable and versatile, suitable for exposed, protected, and buried applications

NEWTON SPECIALIST CONTRACTOR



Newton Specialist Contractors

We recommend that our systems are installed by one of our nationwide network of Specialist Basement Contractors (NSBCs). Trained by us, NSBCs offer a full guarantee on the design and installation, and can act as Waterproofing Design Specialists.



PolyMaxx HA Mat is embedded to provide reinforcement



The finished system provides a completely waterproofed roof



Broadcasting sand into the surface for an anti-slip finish