



Case study

Concrete Repair & Protection

Rebecca Adlington swimming centre

Client: Mansfield District Council

Engineers: Curtins Consulting

Specialist Contractor:

Data Contracts Specialist Maintenance

Products Specified: Sika® MonoTop®, SikaTop®, Sika® FerroGard® and SikaGard®

Sika's comprehensive concrete repair system has protected the newly refurbished Rebecca Adlington Swimming Centre in Mansfield from costly damage to keep it looking as good as new for years.

The company's complete repair and protection system was applied as part of the centre's £4.5 million refurbishment. It included the innovative Sika® FerroGard® corrosion inhibitor, which protects the concrete from the high volumes of carbon and chloride commonly found within humid structures such as swimming pools. Combined with a cement based repair mortar and an attractive protective top-coat, it has extended the life of the concrete areas by at least 15 years.

It was all part of Mansfield District Council's plans to renovate the existing Sherwood Baths and rename it in honour of British Olympic gold medallist, Rebecca Adlington. Having succumbed to disrepair, it was important that once the centre's concrete features, including soffits and columns, were repaired according to the specifications of the council's architect and their engineers Curtins Consulting, they remained in good condition. This meant protecting them from future corrosion and wear to prevent costly repairs in years to come.

In 2009, a new European standard was set for the repair and protection of concrete structures – EN 1504. As all of Sika's product range conformed to all requirements, they provided peace of mind that once used they would ensure lasting benefits.

First, the company's market leading Sika® MonoTop® cementitious repair mortar was used to restore all defects to the structure. Providing a strong bond, whilst being lightweight, Sika® MonoTop® concrete repair mortar offered the ideal solution for fixing the damaged overhead areas in the roof soffits.

Next, Sika's innovative Sika® FerroGard® was applied. Specified by engineers Curtins Consulting, who were brought in to provide supporting expertise to Mansfield District Council's architect, the revolutionary product permeates the steel reinforced concrete surfaces to provide effective protection from corrosion.

An essential part of Sika's concrete repair system, the protective liquid delays and slows the rate of steel corrosion. This extends the maintenance and service life cycles of the concrete for up to fifteen years. Easy and economic to apply, it is simply applied to the surface without changing its appearance – providing invisible yet effective protection against carbonisation.

After the application of Sika® FerroGard®, a bonding layer of SikaTop®, a cementitious mortar comprising a liquid polymer, was applied. Quickly installed, it was well suited to providing additional protection from water ingress in an environment prone to humid air.

Finally, a protective coating of Sikagard® was utilised, offering high levels of weathering resistance and crack-bridging properties – ideal for the harsh swimming pool environment. This layer also enhanced the overall aesthetic of the concrete areas, allowing designers to choose an attractive colour scheme from across the RAL spectrum.

Supplied as a comprehensive solution for concrete repair, backed by decades of experience and technological innovation, Sika's system provided everything needed to keep the Rebecca Adlington Swimming Centre in excellent condition. By extending the lifetime of the concrete structures, visitors can enjoy the pristine centre time and time again.



Sika® Concrete Repair & Protection Systems

Sika is a global market and technology leader in the development and production of specialist products and systems for construction and industry. Repair and Protection of concrete structures is one of Sika's core competencies. The complete Sika product range includes concrete admixtures, resin flooring and coating systems, all types of waterproofing solutions, sealing, bonding and strengthening systems as well as other materials developed specifically for use in the repair and protection of reinforced concrete structures. These have numerous national and international approvals and Sika products are available worldwide through the local Sika companies and our specialist contracting and distribution partners.

For the past 100 years, Sika has gained extensive experience and expertise in concrete repair and protection with documented references dating back to the 1920's. Sika provides ALL of the necessary products for the technically correct repair and protection of concrete, ALL fully in accordance with the Principles

and Methods defined in European Standards EN 1504. These include systems to repair damage and defects in the concrete and also to repair damage caused by steel reinforcement corrosion.

Sika products and systems are available for use on specific types of structures and general concrete repairs in all different climatic and exposure conditions.

Further information

To assist owners, engineers and contractors with the correct selection of repair principles, methods and then the appropriate products, together with their specification and use, Sika has developed a useful schematic system of approach. This is designed to meet the individual requirements of a structure. For project specific technical advice please contact our technical department on 0800 1123863 or alternatively email: technical@uk.sika.com



Sika Limited, Watchmead, Welwyn Garden City, Hertfordshire, AL7 1BQ
Tel: 01707 394444 Fax: 01707 329129 Email: info@sika.co.uk www.sika.co.uk

