



# SIKA AT WORK

## FOUR SQUARES ESTATE, LONDON

REFURBISHMENT: Sika® Ferrogard®-903+ and Sikagard®

BUILDING TRUST



# FOUR SQUARES ESTATE LONDON



## SIKA PROVIDES TOTAL CORROSION MANAGEMENT AT £12.9M FOUR SQUARES RESTORATION

Over the past four years, Southwark Council has invested £326 million into ensuring every one of its homes is warm, dry and safe (WDS) by 2016. At the Four Squares Estate in Bermondsey, South London, Sika has supplied a Total Corrosion Management solution – including over 60,000m<sup>2</sup> of [Sika Ferrogard 903+](#) corrosion inhibitor – during the £12.9 million regeneration of four housing blocks providing homes to almost 700 families.

Built between 1971 and 1975, the Four Squares Estate features 691 homes across four near-identical seven-storey blocks – New Place Square, Lockwood Square, Marden Square and Layard Square. Following a structural inspection by consulting engineers Arup, all Four Squares housing blocks were deemed to be structurally sound but large areas of previously uncoated concrete were exhibiting reinforcement corrosion.

Working closely with clients Keepmoat and Southwark Council, specialist contractor Barwin and Sika carried out on-site trials using [Sika Ferrogard 903+](#) to demonstrate its ability to penetrate the concrete, reach the steel and restore it to a state of passivity. With the tests showing the system successfully encapsulated and protected the reinforcement, the corrosion inhibitor was included in Sika's comprehensive [Total Corrosion Management](#) specification that also comprised repair mortars and protective coatings.

“Due to its age and on-going exposure to the elements, all four buildings' concrete exteriors were suffering from corrosion, as well as stalactites, excessive sediment and efflorescence caused by leaking balconies,” said John Connell, Contracts Manager at [Barwin](#). “A two-stage jet wash was required to clean and prepare the previously uncoated substrate before the application of [Sika Ferrogard 903+](#) mixed corrosion inhibitor across all external elements.”

Designed to extend the service life of aesthetically valuable concrete surfaces, more than 60,000m<sup>2</sup> of [Sika Ferrogard 903+](#) was spray-applied by Barwin's team of operatives. Easy to apply and cost-effective, [Sika Ferrogard 903+](#) penetrates the concrete to provide a protective layer around steel reinforcement whilst maintaining the aesthetics of the structure.

Appointed to complete a series of refurbishment projects on behalf of Southwark Council, Barwin then applied the two part [Sika MonoTop](#) to make repairs to the damaged concrete frame. The system's first layer inhibited corrosion and improved the lifespan of the steel reinforcement, whilst also acting as a bonding bridge for the second layer – a repair and re-profiling mortar.

To provide a final layer of weather protection, [Sikagard](#) was also applied. For the soffits and remaining concrete surfaces except ringbeams, [Sikagard-675W](#) anti-carbonation coating was applied to seal against the ingress of water, chlorides and carbonation. To prevent the ingress of carbon dioxide and moisture whilst permitting two-way water vapour diffusion on ring-beams and horizontal surfaces, [SikaGard](#) - 550W Elastocolor completed the application.

Sika is the global leader in concrete repair and protection, corrosion inhibition and structural strengthening systems. Bringing together these combined resources from a single source supplier, all of Sika's Total Corrosion Management solutions are supported with the expert guidance required to safeguard the refurbishment and repair of any reinforced concrete structure – whether it's for an entire building or a specific problem area.

Suitable for a wide range of concrete repair applications from bridges to social housing, car parks to commercial buildings, all products are backed up by a highly experienced technical team who offer expert specification advice and support. With a comprehensive range of repair solutions, Sika has helped to restore all Four Squares Estate buildings to make them warm, dry and safe for many years to come

**For further information call 0800 112 3863**

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