

SIKA AT WORK PARK PLAZA RIVERBANK, CENTRAL LONDON

ROOFING: Sika-Trocal Type S roofing membrane, Sika-Trocal Laminated Metal Discs and thermally broken fasteners



SIKA-TROCAL DELIVERS FIVE STAR ROOFING SOLUTION AT LUXURIOUS RIVERBANK HOTEL EXTENSION

SINGLE PLY ROOFING MEMBRANES ARE EXTREMELY VERSATILE AND IDEAL FOR VIRTUALLY ANY FLAT ROOFING PROJECT, OFFERING SPEED OF INSTALLATION AND A HUGE REDUCTION IN COSTS. AT THE PARK PLAZA RIVERBANK IN CENTRAL LONDON, THE INSTALLATION OF HIGH PERFORMANCE SIKA-TROCAL TYPE S AND TYPE SGMA MEMBRANES WILL ENSURE THE HOTEL'S MULTI-MILLION POUND EXTENSION AND RECONFIGURATION IS COMPLETED ON TIME AND TO THE HIGHEST STANDARD.

Located on the South Bank of the River Thames, within a short distance of Big Ben and the London Eye, Park Plaza Riverbank welcomes guests from all over the world. As part of a European development programme by parent company PPHE Hotel Group, including three new hotels in London and one in Germany, an eight-storey extension complete by 2016 will add 184 new rooms and a new private penthouse with terraces to the hotel.

Working with ESA architects and Gear Construction, the design has been delivered which includes the creation of eight separate roof areas of different sizes, shapes and pitches. With a fast and reliable installation a key requirement, the mechanically fixed Sika-Trocal S and SGmA systems proved to be the optimum roofing solution, offering a smooth and rapid installation, excellent flexibility and crisp, simple detailing.



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INNOVATION IN ACTION

Due to the city centre location, two roof pitches of 25° and 44°, and both the complexity and number of roof sections, a forward-thinking application method was required. With the company's unique and innovative abseiling solution, ICS Roofing was appointed as the project's roofing contractor. With the complexity of the design, ICS employed specialist Sika-Trocal installers Brightside Roofing to complete the application over a projected 18 week period.

"After careful planning and co-ordination with Gear, they supplied a cantilevered scaffold off the building which allowed us to abseil equipment as a means of fall arrest and to create safe access to the various roof areas," said Tom Peach, Contracts Manager at ICS Roofing.

"Many flat roof membranes do not lend themselves to installation using an abseil, due to the double fix method of insulation and membrane. Heat welding can also become an issue when working on steeper pitched areas, however, Sika-Trocal system offered us a speedy installation that saw the first two roofs installed in under two weeks – much quicker than the 25 days predicted."

Working for ICS throughout the project, Brightside installed a total of 1,755m² of the Sika-Trocal Type S roofing membrane across the three main roof areas. Using the unique Sika-Trocal Laminated Metal Discs and thermally broken fasteners, this provided a rapid and economic roofing solution by allowing ICS to secure both the membrane and the insulation in one go, reducing the fasteners required by 40-60% and speeding up installation.

As well as being one of the most rapid and economic systems to install, it allowed the installation team to achieve exceptional waterproofing and durability – approved by the British Board of Agrément (BBA) to have a life expectancy, in their opinion, of in excess of 35 years.

DEVIL IS IN THE DETAIL

The unreinforced nature of Type S membrane offers exceptional malleability and allows high quality detailing works to be completed to an exceptional standard. On the 44° pitched roof, insulation was cleverly installed in a step formation to allow installers safe and easy access to the highest point of the roof – with the membrane allowing a single continuous application towards a stunning box gutter and parapet detail.

For a number of complex details, ICS turned to Sika-Trocal Metal for a neat aesthetic and crisp finish to perimeter flashings and junctions. As well as a stylish aesthetic and a fast application, health and safety of site operatives and members of the public has been a prerequisite from start to finish.

Working closely with Gear Construction, as well as other trades on site from cladding specialists to steelworks contractors, ICS carefully coordinated site deliveries and use of the crane to minimise disruption and risk. With long term performance of the membrane an absolute must for safety both inside and outside of the hotel, ICS also carefully considered wind load calculations prior to the application.

"Due to the complexity of the roofs and with health and safety absolutely paramount, it was imperative that the roofs were correctly designed and secured to resist wind loads, ensuring outstanding performance and longevity," added Tom Peach.

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SUSTAINABLE SOLUTIONS

As part of the overall application, ICS Roofing appointed Eco Green Roofs to complete the installation above 227m² of Sika-Trocal SGmA membrane. The system was overlaid with sedum matting to create a living roof area and improve the roof's thermal performance.

The garden roof systems are compatible with all existing membranes and once installed, will extend the life of the green roof, help reduce heating and air-conditioning costs and even water sewage charges. The living roof system consists of everything from traditional sedum mats, drainage layers and edge trims, to security railings and harnesses. With low environmental impact a key factor on site, ICS utilised a complex array of insulation ranging from flat board and tapered to new ultra-thin vacuum insulation panels (VIPs). Installed on a series of four terraces, 100m2 of the highly innovative new VIPs were used to overcome the common on-site challenge of door threshold heights.

Completed over a four month summer period, but with the wettest August on record, the innovative, fast and high quality application of Type S and SGmA single ply membranes from Sika-Trocal have ensured that Park Plaza Riverbank remains on track for its 2016 completion date. Thanks to careful collaboration between Gear Construction, ICS Roofing and Sika-Trocal, this stunning extension and reconfiguration will soon welcome thousands of new visitors from all over the world to the highest quality accommodation in the heart of London.

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