

Kemper's Towering Achievement at Clifton Suspension Bridge

Clifton, Bristol

Kemper System's Kemperol cold liquid applied waterproofing membranes have played a vital role in protecting the iconic towers of the Grade I listed Clifton Suspension Bridge in Bristol as part of a refurbishment project.



The scheme involved repointing and restoration of the sandstone structures, along with cathodic protection for the Bath Stone pillars and painting of the bridge chains.

Specialist contractor, Rateavon Ltd, was appointed to waterproof the towers' platforms and refurbish the gutters for each tower, selecting Kemperol 2K-PUR and V210 to carry out the work.

Rateavon began by removing the existing bitumen coating from the towers' cast iron gutters, using Kemper System's solvent-free Kemperol 2K-PUR to replace it. There are limited falls to the gutters and are prone to standing water so the Kemperol system was chosen for its durability in these conditions and the longevity it offers with a BBA-accredited 25 year service life.

The contractor also selected Kemperol 2K-PUR for its compatibility with the zinc primer used to prepare the cast iron substrate and ease of application to the vertical surfaces.

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For the tower platforms, Rateavon selected Kemper System's Kemperol V210, carrying out the refurbishment as an overlay of the existing mastic asphalt substrate. Used for maintenance access, the platforms sit above the towers' electrical infrastructure, so ensuring a durable and leak-free surface is critical.

Rateavon raised the cable trays on each section of the platforms to enable the application of the Kemperol V210 resin. The resin is cold applied, without the fire risk of hot works, in a single wet-on-wet process that ensures complete saturation of the reinforcement fleece; and cures to form a flexible monolithic membrane that is UV stable and bonds directly to the substrate.

Comments Tom Smidek from Rateavon: "This project combined the challenges of a listed structure, an exposed installation and working at height; and Kemper System was able to provide a solution to meet all these requirements.

"The new Kemperol surfaces will provide a long-term waterproofing solution with no risk of uplift and a visual appearance that matches the structures' original design."

About the Bridge:

The Clifton Suspension Bridge, spanning the picturesque Avon Gorge, is the symbol of the city of Bristol. For over 150 years this Grade I listed structure has attracted visitors from all over the world.

The bridge was designed by Isambard Kingdom Brunel, John Hawkshaw and William Henry Barlow and joins Bristol and North Somerset and is owned and operated by Clifton Suspension Bridge Trust. It is entirely funded by tolls - which have paid for its upkeep since it first opened to the public on 8th December 1864.