SIKA AT WORK

ART DECO TOWER, BIRKENHEAD

ROOFING: Sikalastic® 625, Sika Monotop® 615 and Sika® Concrete Primer
SIKA REFURBISHMENT PRODUCTS ENABLE GRADE II ART DECO TOWER TO BE REPAIRED IN STYLE

BACKGROUND
Originally constructed as a ventilation tower designed to manage air quality within the Mersey Tunnel as traffic passed through, the Art Deco tower on Taylor Street in Birkenhead is now redundant and no longer has any operational importance. As a grade II listed building and a landmark of Liverpool's past, however, the tower retains a historic importance and Merseytravel is responsible for maintaining the structure.

The existing asphalt roof covering on the tower’s three roof areas had come to the end of its service life and, to ensure that the building was protected from water ingress and deterioration, Merseytravel commissioned a roof refurbishment project as part of a wider scheme, which also included repointing of the brickwork.

REQUIREMENT
The original brief from the client was to repair the existing asphalt before using a liquid applied membrane as an overlay. However, the condition of the asphalt was so poor in some areas that de-bonded sections of the asphalt had to be replaced and concrete repairs were required to make good areas of the roof where the asphalt was beyond repair using a compatible system.

The project involved three roof areas, one of which includes air intake vents creating challenging details in recessed sections of the roof. This complex detailing and the safety requirements involved meant that use of a liquid applied membrane was a key requirement and speed of installation was critical.

The client also stipulated that the chosen system should offer a robust guarantee to minimise future maintenance and provide an extended service life.

SIKA LIQUID PLASTICS SOLUTION
Following a site survey by Sika Liquid Plastics’ Area Technical Manager, Sika Liquid Plastics’ Quality Assured (QA) contractor, Grade 2 Structural Repairs Ltd, was awarded the project. The company is a specialist in the repair and maintenance of heritage buildings and carried out both the roof refurbishment and the brickwork repairs.

The Grade 2 team suggested that Sika® Monotop 615 concrete repair mortar should be used to make good the existing roof surface in the areas where the asphalt was beyond repair. When approved by Sika’s technical team, the roof areas were made good. The installation team then used Sika® concrete primer for the concrete repair and asphalt areas before applying the Sikalastic® 625 (PU) system.

A fall restraint system was used in combination with scaffolding to enable safe installation of the membrane, which was applied to the upstands and terminated at the chase using Sika® Highflex 250 polyurethane sealant. The single component Sikalastic® 625 system provided speed of installation benefits to help manage the challenges of the project.

Steve Parry from Grade 2 Structural Repairs Ltd comments “While this was a relatively small project at just 400m² over the three roof areas, the air intakes and the need to carry out repairs on the listed building made it challenging.

“The wide-ranging solutions within the Sika portfolio meant that we could combine concrete repair best practice with a versatile and rapid installation liquid roofing system with complete assurance of compatibility to ensure the future durability of the structure.”

PROJECT PARTICIPANTS
Contractor: Grade 2 Structural Repairs
Roofing Client: Merseytravel
Size: 400m²
Products: Sikalastic® 625, Sika Monotop® 615 and Sika® Concrete Primer

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