EMSEAL 'Watertight by Design



Battersea Power Station Redevelopment, London

Case Study

Client: Battersea Power Station Development Company

Consultant: Wilkinson Eyre Architects, Turner and Townsend, Buro Hapold, Purcell

> Main Contractor: Mace

Specialist Contractor: Roseville Projects Ltd

Main Products Used: Emshield DFR2

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Leading Architect Sir Giles Gilbert Scott, who was also responsible for Britain's red telephone boxes, designed the iconic Battersea Power Station on the banks of the River Thames back in 1929 and elevated what was a functional building to an Art Deco masterpiece. For its new incarnation, the lead architects Wilkinson Eyre and their partners, approached the redevelopment with homage to its history, by retaining and enhancing its place in the London Skyline, and adding 21st-century sustainability and sensibility for its new functional life as a great place to live, work and play, in the heart of the city.

The new building structures were designed with 20 to 50mm wide structural expansion joints between floor slabs to accommodate the high levels of thermal movement anticipated, as well as the vibrations from traffic and other loadings. This required the joints to allow +/- 10mm movement, effectively +/- 20 to 50%,

meaning a total joint movement capability of 40 to 100%, plus the joints also had to prevent noise transmission and provide a minimum of 2-hours fire resistance. These stringent demands are why the consultants selected the Emshield DFR-2 System, as it could easily meet all these requirements. In fact Emshield DFR-2 can accommodate more than 100% joint movement capability and is now uniquely CE Marked to EN-1366-4, confirming fire resistance for up to 4 hours, the effective maximum test level.



