

# PROVEN PERFORMANCE

*TOPFLOW ARCHITECTURAL. OLYMPIC AQUATIC CENTRE, LONDON  
THE OPTIMUM HIGH FINISH SOLUTION*

**TOPFLOW**  
ARCHITECTURAL

**Product** TOPFLOW ARCHITECTURAL SELF-COMPACTING CONCRETE  
**Client** OLYMPIC DELIVERY AUTHORITY (O.D.A)  
**Main contractor** A J MORRISROE C/O BALFOUR BEATTY  
**Location** DIVING BOARDS AT THE OLYMPIC AQUATIC CENTRE  
**Date of completion** FEBRUARY 2011

## *Topflow enables the rapid and effortless construction of high-quality vertical surfaces with the need for little or no remedial work.*

### THE CHALLENGE

Inspired by the geometry of water in motion, the iconic London Olympic Aquatic Centre and diving boards were designed by Pritzker Prize-winning architect, Dame Zaha Hadid. Integral to the design of the boards was the design of the reinforcement by structural engineers, Arup, featuring a central void into which concrete was to be placed. To achieve the specified strength and necessary aesthetic qualities, a self-compacting concrete was required. The scope of the contract also extended to the walls at the rear of the board structures, to provide consistent colour and high quality finish. An added challenge was the very tight build programme.

### OUR SOLUTION

Tarmac was brought in by the framework contractors to collaborate in on-site material trials and ultimately to supply the concrete. Following collaboration with the client, it was agreed to use Topflow Architectural Self-compacting concrete, which would provide the necessary strength and a high quality finish to complement the glass-reinforced plastic moulds. A Topflow mix was quickly established that provided the necessary cement replacement proportions, with the requisite open life, workability and hardened property characteristics. A pour regime and placement methodology was also agreed upon.

The four boards were 3m, 5m, 7.5m and 10m in height, with each one rising out of a piled foundation 4m below pool level. The Topflow mix utilized up to 44% GGBS cement replacement for superior durability. For the boards and walls in total, 588m<sup>3</sup> of Topflow was poured and supplied from a unit 18 miles from site.

### RESULTS AND BENEFITS

Topflow's high performance met all technical specifications for the project, as well as meeting the build schedule, to ensure the diving pool was on target to open as planned. The high quality finish ensured that the aesthetic features of the boards and surrounding areas complemented the overall aquatic centre design.

# TOPFLOW

For more details contact your [topflow@tarmac.com](mailto:topflow@tarmac.com) or call **0800 1 218 218**

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