

Project case study

IYLO, Croydon

Product

DuraCrete

Volume

250 cubic metres

Overview

The IYLO is a stunning creation from Darling Associates Architecture. When completed it will be a glass clad elliptical tower of two equal halves that will appear to be sliding past each other. It sits on an island site in a key location close to Croydon centre and will house 183 private apartments including 11 penthouses.



Project description

Heidelberg Materials supplied 250 cubic metres of high strength concrete to the IYLO project, a 20 storey apartment building being constructed in Croydon by Lancsville Construction Ltd for clients Phoenix Logistics and E3 Property.

A design requirement to reduce the depth of the main transfer beam on the third floor from 1.5 metres to 600mm, meant that high strength concrete was needed to retain the structural capabilities in the thinner section. To meet this specification, Heidelberg Materials supplied 250 cubic metres of C90 concrete from its plants in Wandsworth, Wimbledon and Sevenoaks. Sika® Viscocrete® 25MP, Sika®Stabiliser 4R and Sikatard® 930 admixtures were incorporated in the mix to obtain 28 day strengths of 115N/mm², well in excess of the required design strength.

Heidelberg Materials and Sika® technical staff worked together with Mr Hendrik de Bruin of structural engineers Matthew Consultants, conducting rigorous laboratory trials

before producing the final design mix. The actual pour itself presented quite a challenge, not only because of the size of the pour and the quality of the concrete, but also having to cope with traffic and local conditions on the 'island' site.

To ensure a successful conclusion, a vast amount of work went into preparation and planning. This involved not only the trial work but also a coordinated team approach between the Heidelberg Materials London Technical and Operations team with Sika® technical staff, and field technicians working on-site and at the plant, to ensure that the project ran smoothly throughout the pour.

Jasen Gauld, Heidelberg Materials Technical Services Manager said "The close working relationship of Heidelberg Materials and Sika®, who have been monitoring the project and ensuring that the concrete arrives on time and to the correct specification enabled us to meet all of the projects challenges.