

# Job Reference

## Associated British Ports' Oil Terminal, Immingham



### The Challenge:

The UK's largest single pour of self-compacting concrete (SCC) took place during repairs carried out at Associated British Ports' Oil Terminal at Immingham on the North East coast of Lincolnshire. The area to be repaired was located at the end of a jetty and was problematic because its reinforcement was extremely congested. The upstanding reinforcement prevented access for the conventional placing and compaction of concrete and, moreover, the 1.5m deep steel piles supporting the area contained residual water, also a potential obstacle.



### The Solution:

Using SCC by-passed these problems, as once pumped into place it needed no compaction. BASF admixtures GLENIUM® 51 and MEYCO® MS 685 were added to 10mm gravel aggregate concrete supplied by Lafarge Ready Mix, which was placed by contractor Nuttalls.



### Application:

Over 250m<sup>3</sup> of SCC was poured into the area, which measured 27m x 17.5m, with a depth of 0.4m. The concrete penetrated the full 1.5m depth of the piles, displacing the residual water with no overwash. The pour was completed with a single concrete pump in just six hours. The Immingham ABP Oil Terminal SCC project is being used for research by the Concrete Society Working Party on Self-Compacting Concrete, the results of which will be published in Concrete magazine. Various tests have been carried out on the fresh concrete for inclusion in the Working Party's data.



### Other BASF Marine Structure References:

#### United Kingdom

Immingham Oil Terminal  
Trinity Pier, Harwich

#### Europe

Autoterminal "Port Barcelona", Spain  
Container Terminal Born, Netherlands  
London Berth, Jersey Harbour, Channel Islands

#### South America

Container Terminal, Paranaguá, Brazil  
International Terminal,  
Puerto San Antonio, Chile  
Pluspetrol Marine Terminal, Piso, Peru.  
Sondur Muiui Hydro Electric Power Project, Kenya

#### Asia Pacific

Redcliffe Jetty and Seawall. Australia  
Jebel Ali Free Zone, UAE  
Queen's Pier, Hong Kong  
Port of Singapore  
Tai Chung Harbour, Taiwan

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