

Liverpool 2 Dock Extension

Concrete admixtures used in construction of docks extension



Our reference in Liverpool (United Kingdom): Liverpool 2 Dock Extension

The background

The catalyst for a wider infrastructure investment in Liverpool's Waterfront and transport links, Liverpool 2 deep water container terminal has allowed the city to accommodate the newest, largest container vessels – the post Panama class.

The challenge

More than 50,000m³ of concrete was required in a variety of mixes to create the new berths.

Many of these mixes needed to be pumped 600 linear metres out to the mass sea wall piles and rear crane piling in a river with the second biggest tidal range in Britain.

In addition, 10,000m³ of concrete was supplied to the temporary on-site precast works.

Project:

Liverpool 2 Dock Extension

Location:

Liverpool

Main contractor:

Winvic Construction

Concrete producer:

Aggregate Industries

Applicator:

Stanfords Industrial Flooring

Market sector:

Ready-Mixed Concrete

Products used:

MasterGlenium SKY 820

MasterPolyheed 400

Contact:

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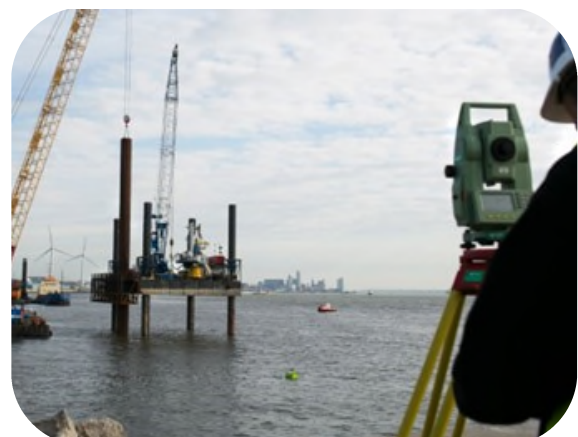
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Our solution

Master Builders Solutions supplied two admixtures to the project to facilitate the long-distance pumping the project required, MasterGlenium SKY 820 and MasterPolyheed 400.

MasterGlenium SKY 820 is an innovative superplasticizer based on a unique blend of state of the art polymers. Specially engineered for Ready-Mixed Concrete, it allows the production of high quality Ready-Mixed Concrete particularly when high water reductions are required in combination with a requirement for an extended period of workability e.g. long distance deliveries or deliveries with extended discharge times.

MasterPolyheed 400 is used to increase/extend workability, increase compressive strength and effect cement economies. Its wide dosage range enables water reductions in order to produce a dense concrete with reduced permeability and water penetration.

The customers benefit

- Provided concrete longevity of three hours within the pipe
- Enabled pump to be re-set within the three-hour window
- No compromise on Ready-Mixed Concrete quality
- Suitable for marine environment

Project facts at a glance

- £300m investment to create two post-Panama container ship berths at the Port of Liverpool's Seaforth Docks
- 60,000m³ of concrete supplied to project for uses including the support of mass sea wall piles, crane rail piling
- Master Builders Solutions supplied MasterGlenium SKY 820 and MasterPolyheed 400 admixtures.