

Project Spotlight



Sainsbury's Charlton, UK

31,400m² of 'jointless' SFRC floor slab has been designed and constructed by Twintec for Sainsbury's Distribution Centre in Charlton

The new state-of-the-art distribution centre is dedicated to supporting Sainsbury's convenience store expansion in London and the South-East which is being accelerated due to consumer demand for quality products at a fair price available within the local community.

Sainsbury's continuously strive to achieve the highest standards of quality in all areas of their business and the choice of a Twintec Freeplan® 'jointless' floor slab in their Thameside distribution centre is part of this quality commitment.

The project followed the Twintec Design-Build-Guarantee concept with total responsibility being taken for the concrete floor slab package. This included detailed design options with reference to piling layout choices as the DC was built on an existing brownfield site. Having the ability to provide in-house designs was particularly important, as the site was an existing piled building before demolition. Many obstructions in the ground caused pile centres to be modified and the floor slab design was changed to accommodate this. Working closely with the consulting engineers and piling contractor, the early introduction of Twintec ensured a suitable solution for all scenarios.

A well-structured quality control programme was an integral part of the works. Twintec employed an independent technician to undertake concrete cube tests, beam tests, fibre dosage checks and slump tests. The use of a fibre integration machine with experienced operators ensured even dispersion of the fibres throughout the concrete, confirmed by the test results from the fibre dosage checks. The floor has also been tested for FM2 Special flatness and this demonstrates excellent results.

Due to the nature of the existing brownfield site, a gas membrane was installed in conjunction with the floor slab casting programme with a specialist membrane contractor working on a 'just-in-time' basis, to allow the floor to be laid using the laserscreed machine. This ensured that the very tight production programme was met.

No construction site is without its challenges and this was no exception. McLaren Construction had committed to delivering a fast build project for Sainsbury's which required all trades on site to integrate activities. Twintec took just 21 days to complete the multipurpose (chilled, freezer and ambient) distribution centre pouring an average of 1,800m² per day with up to 400m³ of concrete per day with a fully UK employed skilled and experienced workforce.

Project Data

End User:	Sainsbury's	Application Type:	'Jointless' SFRC
Main Contractor:	Bericote Properties		ground bearing slab suspended on piles
Consultant:	RPS Group		
M ² :	31,400m ²	Completion Date:	October 2012

Contact the Twintec business team for further information:

Tel: + 44 (0)1788 567722 **Email:** mail@twintec.co.uk

Unit 1, Prospect Park, Valley Drive, Rugby, Warwickshire CV21 1TF, United Kingdom