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Project Spotlight

Aerospace Supply Chain Facility
Dubai South, UAE

Multi-tennant facility - SFRC ground bearing Freeplan® 'jointless' floor slab

Located within the Dubai South Aviation district and the first of three facilities being developed by Dubai South, the project is a multi-purpose building for tenants that are part of the aerospace supply chain. Catering specifically to small to medium enterprises within the maintenance repair and overhaul (MRO) sector it is part of the commitment of Dubai South Aviation district to create value-added infrastructure for the aerospace supply chain.

Twintec were chosen by general contractor City Diamond Contracting and approved by Global Engineering Consultants to design and construct the large panel, SFRC 'jointless' floor slab. Twintec in-house engineering team designed the floor slab allowing for the internal walls to be built off the floor slab offering flexibility to the client for the size of each individual tenant's unit. The slab is 200m thick and reinforced with 30kg/m^3 of 08/55 AFT high tensile strength steel fibres. The Freeplan® 'jointless' slabs mean no sawn induced contraction joints are required resulting in a low maintenance, durable floor slab that will meet the clients current and future needs.

Project Data

End User:
Multi-tennant facility

Main Contractor:
City Diamond Contracting LLC

Consultant:
Global Engineering Consultants

M2:	8,710m^2
Pour Days:	6
Flatness Tolerance:	FM2
Slab Depth:	200mm
Fibre Type:	AFT 08/55
Fibre Dosage:	30kg/m^3
Completion Date:	Oct 2016

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Project Spotlight

Committed to our clients
From the earliest stages of the planning process. Design and budget costs – the in-house team ensures a personalised solution that's tailored to meet clients' specific requirements.

Committed to safety
Twintec accepts nothing less that the best. The business has been built on a foundation of motivated and healthy employees and a safe working environment.

Committed to sustainability
Twintec will minimise environmental impact by design optimisation and utilising the latest material technologies.

Twintec fibre integration machine

Twintec is a technical specialist in the use of steel fibre reinforced concrete

The Twintec name reflects the twin technologies of concrete and steel fibres. Design expertise and high grade materials are coupled with experienced skilled workers, continuously improved procedures and specially designed equipment.

Concrete:

Twintec took total responsibility for concrete mix design and delivery co-ordination. Our in-house concrete specialist worked with chosen concrete supplier MB Mix assessing concrete supply, carrying out trial mixes and plant trials to ensure a consistent mix design. MB Mix committed to and achieved the required daily delivery volume demanded by Twintec.

Fibres:

Twintec uses fibres extensively tested and proven to provide outstanding performance control of cracks, maximum flexural and shear strength. The fibres were integrated on site by skilled/experienced operators using a high speed fibre integration machine to ensure the fibres were uniformly dispersed into the concrete.

Armoured construction joints:

Twintec used the Peikko Tera joint selected for its load transfer capability and durability, this was specifically important on this project to carry the line loads of the internal walls that were built on the slab post construction.

Machinery:

Twintec develop and build machinery in-house to satisfy high performance requirements. This project utilised a laserscreed machine for levelling of the concrete and a mechanical topping spreader to apply the dryshake hardener, supplied by BASF.

Contact the Twintec Middle East business team for further information:

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