

Project Spotlight



Carrefour Chilled & Ambient Distribution Centre Dubai, United Arab Emirates

SFRC ground bearing Freeplan® 'jointless' floor slab

Carrefour's new distribution centre in Technopark, Dubai is the largest FMCG logistics hub in the region and reflects the growing demand for retail logistics locally and the changing nature of customer demands. Inside the centre, there are seven temperature zones range from 0-2 to 25 degrees centigrade, to ensure food is stored in the optimum temperature to preserve its freshness.

Twintec designed and constructed a large panel (up to 42m x 40m) steel fibre reinforced 'jointless' concrete floor slab to ensure Carrefour realise long term operational benefits in business efficiencies and provide a floor slab that will substantially reduce maintenance costs on the floor and MHE equipment. The Co-sinus steel armoured construction joint was used in conjunction with the Peikko Terra joint to maximise load transfer capabilities and floor operational efficiencies.

The fast track construction programme demanded by Carrefour and Amana Steel Contracting & Building was also applied to the floor slab and Twintec's highly skilled and experienced production team averaged 2,156m² per day, 6 days a week whilst maintaining the Twintec standard high quality finish.

Project Data

End User:	Carrefour
Contractor:	Amana Contracting & Steel Buildings
Consultant:	B&A Engineering Consultants
Developer:	Giolog
M2 :	51,729
Pour Days:	24
Slab Depth:	160mm
Completion Date:	January 2018



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Twintec provides a personal product through a total offer concept with a high level of performance, environmental sustainability and aesthetics worldwide.

Twintec Group offer a total offer concept to their customers worldwide to achieve their vision. The complete Design-Build-Guarantee in-house service goes far beyond the industry norm, offering a level of support, quality assurance and peace of mind which has established the company as the world's leading industrial concrete flooring contractor.

Twintec Floor Slab Benefits:

- Low life cost through substantially **reduced** floor & equipment maintenance costs
- Significantly **increased** operational efficiency
- **Fast** construction programme
- **Strong** durable surface & superior high quality aesthetically
- **Future proofed** floor for future business configurations

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

The selection of concrete materials, mix design formulation, and testing program were coordinated jointly by Transgulf Readymix and Twintec's team to precisely meet the objectives of the high performance 'jointless' concrete floor slab.

The concrete mix was engineered using high-grade aggregate, ground granulated blast-furnace slag (GGBS) cement, and specially formulated concrete admixtures to provide consistent workability retention, placement and levelling characteristics, and adequate early-age concrete properties simultaneously for the multiple types of slab on grade applications and conditions specific to this project. The eco-friendly and sustainable GGBS Blended Cement Concrete were in conformance with Dubai Municipality Standard for Durable and Green Reinforced Concrete Elements.

The combination of concrete mix consistency and controlled supply rate, using Transgulf Readymix's Dubai Central Laboratory (DCL) certified concrete batching plants and delivery trucks, met the robust quality control strategy demanded by Twintec to successfully achieve the high standard of the finished floor.



Preparation is one of many critical success factors. Slip membrane laid in preparation for next concrete pour.



Co-sinus steel armoured construction joint - providing smooth load transfer trafficked areas for high MHE.



"Giolog DWC-LLC have been operating in the UAE since 2007 as a developer and investor of custom-designed logistics and industrial facilities for the Middle East region. As we focus on logistics facilities we have a clear understanding of how critical the floor is for operations and for the floor to remain of a high standard throughout the lifetime of the building. Over the years we have found Twintec to be a reliable partner in insuring that the high standards required for an industrial floor are achieved and in some cases exceeded. On the Carrefour project Twintec have again produced a quality floor to the satisfaction of the client and consultant and deserve credit for their professional approach and staff who contributed to the successful completion of this project. Well done Twintec. Keep up the good work." **Lionel Haggard, General Manager**

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