

Aqaba Port is weatherproof with SFRC pavement



Development of the port of Aqaba is critical to the economy of Jordan - the container terminal is the country's only connection to the Red Sea trade routes. In 2018, there was a requirement for a 45,000 m² pavement to serve an expansion of the container terminal. It had to be able to resist the aggressive environment of a coastal location.

The challenge

A container terminal pavement not only has to withstand continuous and heavy loadings from stacked containers, trucks and craneage, but it has to do so in a challenging environment where the effects of sun and wind are compounded by a corrosive, salt-laden atmosphere. Aqaba required a durable high performance solution, and one which moreover could be laid quickly.

The solution

A steel fiber reinforced concrete (SFRC) pavement suitable for this performance class was designed by Arcadis, with input from Bekaert who also took responsibility for concrete mix design and method statement, fiber mixing and quality control on site. Steel fiber is a discontinuous form of reinforcement, so yields higher performance and greater durability in aggressive environments. SFRC is much quicker to cast too (no time and labor on

extensive steel rebar fixing), which allows better control of shrinkage when laying the pavement outdoors while exposed to sun and wind.

The economic and timely delivery of the pavement was aided by Bekaert's presence in the Middle East, with materials delivered from the company's Dubai facility.

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Project Specifications

Project type: port pavement
Application: saw-cut
Product: Dramix® 3D 45/50BL

Partners

Owner: Aqaba Development Corporation
Designer: Dar Al-Handasa/ Arcadis
Main contractor: Impresa Di Costruzioni ing. E.

