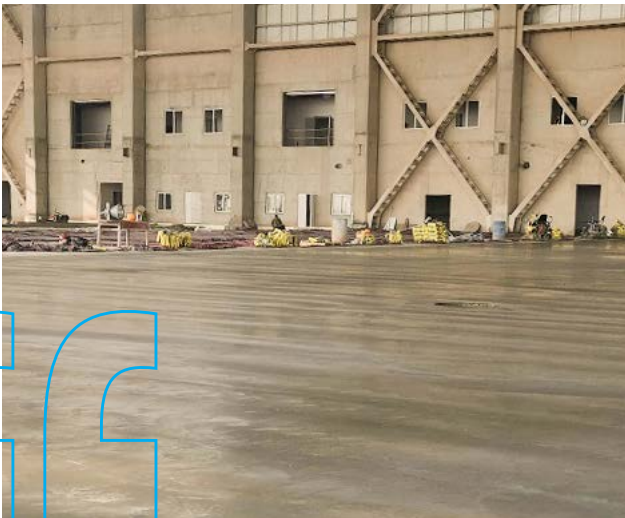**Bekaert**

Jiaodong International Airport Shandong Airlines Base Hangar

The Jiaodong International Airport Shandong Airlines Base Hangar, located in Qingdao, Shandong Province, China, is a significant infrastructure project spanning 11,000 m². As the largest span hangar in Shandong Province, it is designed to accommodate the parking and maintenance of up to five Boeing 737 aircraft or two Boeing 787 aircraft. This facility is crucial for the operations of Shandong Airlines, providing a state-of-the-art space for aircraft maintenance. The project was managed by China Construction Eighth Engineering Division Corp., Ltd.

The challenge

The hangar floor needed to meet exceptionally high standards due to its specialized use. These specifications were essential to support the heavy loads and dynamic forces exerted by large aircraft, as well as to ensure long-term durability and ease of maintenance. Traditional reinforcement methods were initially considered, but concerns arose regarding their ability to manage construction time and costs efficiently.

The solution

To address these challenges, the project implemented a heavy-load saw-cut floor using Dramix® steel fiber concrete reinforcement. Our reinforcement solution enhanced the concrete's crack resistance and overall durability, essential for supporting two Boeing 787-9 aircraft or five Boeing 737 aircraft. The floor, with a thickness of 0.4 meters and a dosage of 20 kg/m³ of steel fiber, was constructed with saw-cut spaces of 9m x 9m to optimize performance. The use of Dramix® steel fiber not only met the stringent technical requirements but also reduced construction time and costs, offering a compelling total cost advantage, which gained strong support from the general contractor.

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Project Specifications

Project type: Maintenance Hangar
Application type: Heavy-load saw-cut floor
Product: 3D 80/60BG

Partners

General Contractor: China Construction Eighth Engineering Division Corp., Ltd.