

Aertssen's warehouse floor delivers unparalleled performance at a low footprint



Aertssen's new warehouse in Verrebroek, Belgium has a world-first commercial SigmaSlab® outside floor. With improved durability, lower maintenance, faster and cheaper construction, and a reduced environmental footprint, the seamless floor withstands constant high traffic.

The challenge

Aertssen stores and moves large quantities of heavy machinery and equipment, from excavators and wheel loaders to windmill blades. The exterior floor at their Verrebroek logistics facility therefore has to be extremely durable and resistant to continuous heavy-duty traffic. At the same time, the solution had to be sustainable, to comply with Aertssen's sustainability credentials.

The solution

Delporte executed the first SigmaSlab® floor in the world. SigmaSlab® is a concrete reinforcement technology that combines Dramix® steel fibers with CCL's post-tensioning strands. The Dramix® 4D steel fibers ensure the structural stability and fatigue resistance of the floor while the post-tensioning strands take up the shrinkage and temperature stresses. The resulting seamless concrete floor was 180 mm thick

and measured 130m x 20m. The SigmaSlab® solution uses less steel and concrete than a conventional solution, resulting in a smaller carbon footprint. A year later, no cracks have appeared despite continuous heavy use, which has reduced maintenance and repair costs.

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Project Specifications

Project type: Warehouse
Application: Seamless floor
Product: SigmaSlab®

Partners

Flooring contractor: Delporte & Zonen
Owner: Aertssen Logistics
Concrete plant: De Rijke

