TAB®Structural

ArcelorMittal Fibres

Reinforced concrete solutions

The world's most dynamic sports retail brand builds new logistics warehouse

Project overview ›

IIC-INTERSPORT International Corporation GmbH took the decision to construct a new high-bay logistics warehouse and logistics centre in Heilbronn. The INTERSPORT group has the leading position in the sporting goods retail market offering products for football, running, fitness and wellness, winter sports, skiing, tennis, swimming, team sport, and multi-sports.

Covering the globe from Canada to Australia to Finland, INTERSPORT spans across 44 countries with over 5,500 stores. With its clear vision to be the world's most dynamic, famous and profitable sports retail brand, and to become the first choice for all sports enthusiasts, the new construction in Heilbronn will add another important facility to its many assets.

Project: New high-bay logistics warehouse

Location: Heilbronn, Baden-Württemberg, Germany

Client: IIC-INTERSPORT International Corporation GmbH

Construction partners: Godel Beton (Batching plant and key partner with ArcelorMittal Fibres)

Flooring contractor: CBL Chemobau GmbH

Construction contractor: Albert Amos GmbH & Co. and KG

Surface: 5,724m^2

Slab thickness: 30cm

Concrete class: C35/45

Dosage: 30kg/m^3

Fibre type: HE++ 90/60

Central pile grid: 1.2m centres

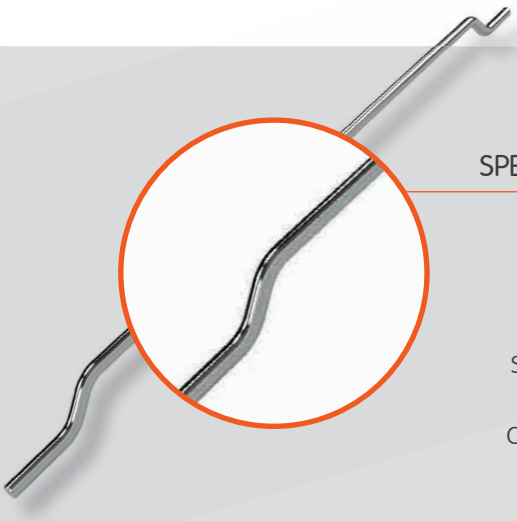
> "The technical hybrid solution from ArcelorMittal made of steel fibre concrete and reinforcing steel convinced our customers and saved a lot of money and time."
>
> Olaf Hahne
> Godel Beton GmbH

THE WORLD'S MOST DYNAMIC SPORTS RETAIL BRAND BUILDS NEW LOGISTICS WAREHOUSE

The challenge ›

The challenge set by IIC-INTERSPORT International was for an efficient and durable flooring solution that would ensure the long term sustainable use of warehousing and logistics processes.

Static and dynamic loads, including high racking, forklift traffic and automated systems are a prominent feature of the new facility's function. Added to this, adverse ground conditions demanded a slab on piles solution.



SPECIFICATION

Fibre type:
HE++ 90/60

Dosage:
30kg/m^3

Slab thickness:
30cm

Concrete class:
C35/45

Surface area:
5,724m^2

The solution ›

The new architectural structure consists of a ground floor, steel fibre reinforced construction, that serves as the picking area and an upper floor, which is used as a high-rise shelf and automatic small parts store. Additionally, there is a two-story office block located above the goods delivery area.

The design for the slab was developed according to *DAfStb- German Guideline Steel Fibre Concrete (2012).*

After performance testing, the HE++ 90/60 fibre was specified with concrete class C35/45 and a performance class of L 2,1/2,1 with a slab thickness of 30cm.

The 5,724m^2 slab measures 54x106m. Additional reinforcing bars 2Ø12 / 200mm were used in upper and lower positions throughout the slab.

The result ›

The ArcelorMittal Fibres team consulted on the 5,724m^2, 30cm deep slab. Ground conditions demanded a slab on piles solution that was reinforced with HE++ 90/60 fibres. Compared to the construction of traditional reinforced concrete slabs on piles, the widely used TAB®Structural system proved, once again, to be a simple, efficient and very fast way to construct a floor slab that would represent outstanding value for money. The construction process was simplified greatly with only very minimal use of rebar reinforcement (additional reinforcing bars 2Ø12 / 200mm were used in upper and lower positions throughout the slab). This process not only saved time and cost, but it delivered exceptionally high load bearing capacity, minimal shrinkage and excellent durability.

High static and dynamic load bearing performance was achieved, as well as resistance to high impact forces.

The world is building on our expertise.

Contact: fibresupport@arcelormittal.com
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