



The 40m tall fridge that is built on ArcelorMittal Fibres

A high-loaded floor on piles, reinforced with ArcelorMittal Fibres, supports Skånemejerier's 40m tall refrigerated distribution centre in Malmö, Sweden.

Project overview >

Customer: Primekss SIA

General Contractor: SKANSKA

Owner: Skånemejerier

Slab on Pile: 3.0m x 3.0m pile grid

Loads: 130 kN/m², equivalent to 780kN point load

Concrete class: C30/37, PrīmXComposite

Fibre type: HE+ 1/60

Fibre dosage: 55kg/m³

Usage: Refrigerated warehouse

Surface area: 3,120m²

Slab thickness: 33cm and 10cm

CO² savings: 230,925kg

Construction date: April, 2016

“The traditional mesh solution was optimised to a high-performance steel fibre reinforced technology-PrīmXComposite. This allowed a time saving of more than two thirds of the projected construction time. With this solution the slab was installed within 1 week instead of the planned 3 weeks that was intended.”

Jānis Kamars, Senior Engineer
Primekss

Background >

In April 2016 ArcelorMittal Fibres worked together with Primekss SIA, SKANSKA, and owner Skånemejerier to deliver a 3,120m² high bay refrigerated warehouse for Skånemejerier, Sweden's second largest dairy company.

With Skånemejerier's annual revenue currently in excess of 4 billion SEK, its primary focus is the development, production, and marketing of dairy products in Sweden, and internationally.

Skånemejerier's principal brands are Skånemejerier, Bravo, and Allerum Ridge Country Milk.

Since 2012, Skånemejerier has been part of Group Lactalis, the world's leader of dairy products with 211 production sites in 37 countries.

Skånemejerier has four production sites and approximately 600 employees.

The challenge >

With the clear purpose of meeting the challenges of increased customer demand and growth, Skånemejerier made the decision to construct a new high-bay warehouse with cooler in Malmö, Sweden. At 41 metres high, the new warehouse is the tallest warehouse in Southern Sweden. High static loads, high speeds and automated warehouse systems require a base structure and floor that will facilitate efficient operations, without interruption for maintenance or repair, now and for the long term.

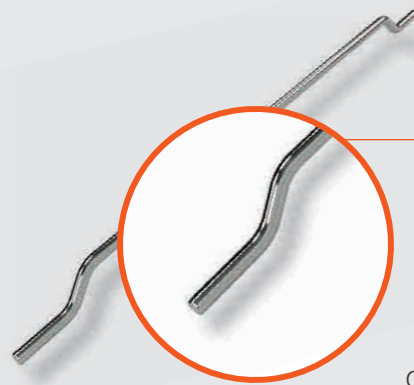
The solution >

Skånemejerier's choice of automated systems provider meant that high tolerance demands were required.

To meet these intense requirements, a PrīmXComposite floor on piles, reinforced with ArcelorMittal Fibres, was installed.

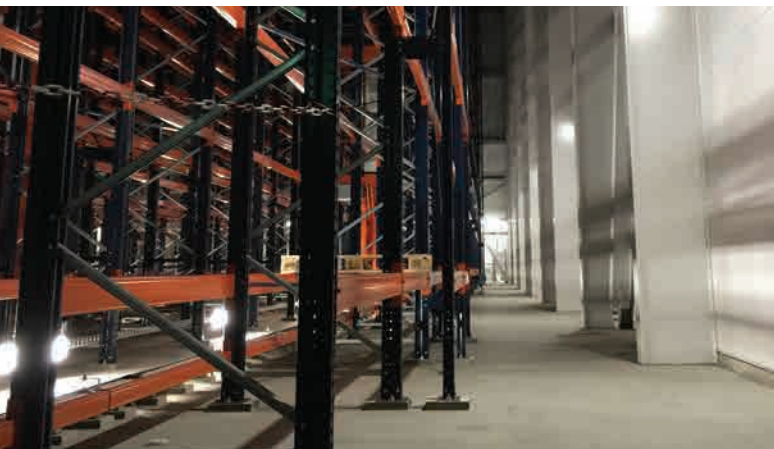
This solution was ideal for this application due to there being no joints (or very tight working joints) providing a very smooth and flat floor, with low maintenance costs and minimal wear or damage to equipment. The solution optimises productivity, serviceability and delivers excellent long-term value.

The floor thickness was set at 33cm, with a thinner area of 10cm where assembly works were projected.



SPECIFICATION

Fibre type:	HE+ 1/60
Dosage:	55kg/m ³
Slab thickness:	33cm and 10cm
Concrete strength:	C30/37 PrīmXComposite.
Surface area:	3,120m ² .



The result >

The use of steel fibre reinforcement, in place of steel bars, meant that the installation was completed efficiently and safely, within a short installation time.

The solution saved two weeks of construction time representing an approximate 66% faster installation period than a typical steel-bar reinforced floor.

The world is building on our expertise.

Contact: fibresupport@arcelormittal.com

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