



# A high impact, shock resistant floor for a roller coaster ride company

## Project overview >

Based in Munich, Maurer and Soehne design and manufacture roller coaster rides for the leisure park industry. Their services enjoy a world-wide market that is growing.

BM Industriefußboden appointed ArcelorMittal Fibres to support them with slab capacity analysis for a new 4,200m<sup>2</sup> industrial floor, the concrete specifications and the dosing of fibres.

**Customer:** BM Industriefußböden

**General Contractor:** Maurer and Soehne

**Load bearing capacity:** Distributed point loads – assumed equivalent load 8 t/m<sup>2</sup>

**Concrete class:** C30/37

**Fibre type:** TABIX 90/35

**Fibre dosage:** 35kg/m<sup>3</sup>

**Usage:** Production hall

**Area:** 4,200m<sup>2</sup>

**Slab thickness:** 26cm

“This project demanded a solution that would meet Maurer and Soehne’s varied requirements.

Dynamic and static loads, resistance to high impact and long and narrow slab sections meant that the TABIX fibre, dosed at 35kg per m<sup>3</sup>, would deliver an industrial floor that would be future proof for decades to come.”

## The challenge >

Heavy machinery and high impact forces combined with variable static and dynamic loads meant that Maurer and Soehne's requirements for a new industrial floor for their manufacturing and testing facility in Munich would need careful planning and implementation.

The production floor features several long and slim concrete floor sections. In order to deliver an industrial floor that was fit for purpose for many decades to come, we needed to minimise the cracking within these sections.

Further to these requirements, Maurer and Soehne wanted their production facility to be fully operational within a very short period of time.



### SPECIFICATION

Fibre type:  
TABIX 90/35

Dosage:  
35kg/m<sup>3</sup>

Slab thickness:  
26cm

Concrete class:  
C30/37

Surface area:  
4,200m<sup>2</sup>

## The solution >

To minimise cracking a high dosage rate was required to maximise the density of fibres within the concrete mix.

Our engineers specified the TABIX 90/35 dosed at 35kg/m<sup>3</sup>.

TABIX is an advanced steel fibre with an undulating 3 dimensional form providing excellent anchorage properties.

The shorter length and thinner physical form of TABIX allows a greater number of fibres to be concentrated within the volume of the concrete, making the concrete slab not only stronger, but more resistant to cracking.

With the correct dosage levels, TABIX delivers increased strength, shock resistance and excellent crack control.



## The result >

Maurer and Soehne's new industrial floor was poured within a one week period and shows no visible cracks on the surface of the floor.

This steel fibre reinforced concrete slab has made the working environment extremely efficient and safe.

All load bearing requirements have been met and there is scope to accommodate increases in static and dynamic loads.

# The world is building on our expertise.

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