

# Industrial slab supports 'Heavyweight Precision' at Narzędziownia plant

## Project overview >

Narzędziownia, the reputable manufacturer of industrial moulds for casting aluminium, magnesium and zinc, is known for 'Heavyweight Precision'. Narzędziownia also manufacture elements for moulds, cores with internal cooling, trim dies, permanent moulds and core boxes.

Founded in 1997, Narzędziownia quickly grew its business and, in 2017, made the decision to construct a new production unit in Stojec near Praszka city in the southern part of Poland.

**Customer:** Narzędziownia Pszenica Sp. z o.o.

**Location:** Stojec, Praszka, Poland

**General Contractor:** ADAMIETZ

**Floor Contractor:** Mabet Opole

**Slab:** 6m x 6m

**Loads:** UDL 153kN/m<sup>2</sup>. Point load 88,4kN

**Concrete class:** C30/37

**Fibre type:** HE 1/50

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

**Usage:** Heavy tooling production

**Area:** 2,100m<sup>2</sup>

**Slab thickness:** 260mm

**Construction date:** April 2018

“The static calculations, support and advice given by ArcelorMittal was a valuable influence in this project. Not all suppliers can offer this level of knowledge and expertise and this is what makes ArcelorMittal different.”

Anna Folega,  
Mabet Sp. z o.o.

## The challenge >

Narzędziownia required a new 2,100m<sup>2</sup> industrial slab that would perform well within a high impact, heavy load bearing context. Heavy machinery, dynamic and static loads and a continuous stream of light and heavy traffic, coupled with a requirement for zero maintenance, meant that the ArcelorMittal Fibres team and its project partner, Mabet Opole, needed to ensure that they delivered a solution that was fit for purpose today and well into the future.



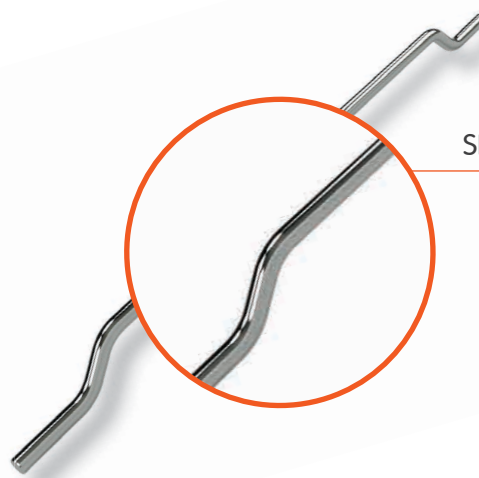
## The solution >

In consultation with project partners, ArcelorMittal Fibres specified a TAB®Fibre solution. TAB®Fibre is a solution for steel fibre reinforced concrete slabs and it is highly suitable for industrial flooring that needs to withstand light and heavy loads, either static or dynamic.

This delivered some very beneficial effects on the safety of the installation, the time taken to install the slab, reduced cost of materials and reduced labour costs.

Saw-cut joints provided essential contraction joints and ensured effective shrinkage and crack control.

In order to arrive at this solution the ArcelorMittal Fibres engineering team undertook a detailed study of all the parameters affecting the design of the structure. By doing this we were able to offer an optimised solution and our support and advice was utilised throughout the duration of the project to final completion.



### SPECIFICATION

Fibre type:  
HE 1/50

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

Slab thickness:  
26cm

Concrete class:  
C30/37

Surface area:  
2,100m<sup>2</sup>



## The result >

The ArcelorMittal Fibres team, in partnership with Mabet Opole, delivered a high performance, future proofed solution that will stand the test of time.

We advised, in detail, on the setting up the project specification, the most appropriate fibre type to comply with the specification, optimum dosage rates to guarantee performance and concrete mix optimisation. The team also provided on-site support and advice.

From both durability and functional perspectives, the new ArcelorMittal steel fibre reinforced concrete slab at Narzędziownia is a success.

# The world is building on our expertise.

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