

# First Spanish free suspended elevated concrete slabs displaying ArcelorMittal TAB®Slab solution

## Project overview >

LKS group is part of the Consulting and Engineering Division of MONDRAGON, the leading Basque business group, consisting of 239 companies. Employing around 700 people, LKS provides services in the fields of management and technology consulting, legal advisory, architecture and engineering in urban planning, construction and infrastructure, and real estate consulting. With offices across Spain, Europe, America, China and India, LKS chose ArcelorMittal Fibres to design a steel fibre reinforced concrete TAB®Slab solution for their headquarters in Arrasate-Mondragón.

## ArcelorMittal Fibres solution >

- TAB®Slab

**Location:** Arrasate-Mondragón (Spain)

**Owner:** LKS

**Jobsite management:** LKS

**General contractor:** Galdiano Construcciones

**ArcelorMittal Fibres used:** TABIX 1.3/50

**Dosage:** 100Kg/m<sup>3</sup>

**Concrete class:** C30/37

**Slab thickness:** 30cm

**Area:** 3500 m<sup>2</sup> (5x700m<sup>2</sup> suspended slabs)

**Variable loadings:** 2 kN/m<sup>2</sup> to 11 kN/m<sup>2</sup>. Significant span lengths (up to 8m) and cantilevers (up to 1,80m)

“Leading steel fibre reinforced concrete technology and after many years of big investments in R&D, ArcelorMittal Fibres has developed full structural steel fibre reinforced concrete solutions for free suspended elevated slabs. It is the big success of a dedicated ArcelorMittal Fibre team.”

Javier Álamo  
ArcelorMittal Fibres

## The challenge >

The biggest challenge the LKS project faced was that steel fibre reinforced concrete was not recognised by the Spanish authorities. Project partners wanted to switch from a traditional reinforcement, double mesh solution (180kg/m<sup>3</sup>) to a steel fibre reinforced concrete solution.

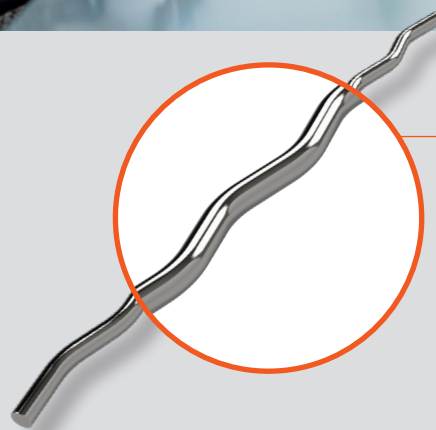
In order to obtain the necessary permissions for the construction the ArcelorMittal Fibres engineering team had to prove that the proposed solution provided was able to fulfill with all technical requirements from structural behaviour point of view.



## The solution >

The TABIX 1.3/50 fibre, dosed at 100kg/m<sup>3</sup> within a C30/37 concrete mix provided exceptional levels of consistency and workability.

The project delivered a cost effective solution which was constructed easily, quickly and safely, reducing the requirement for labour intensive traditional mesh reinforcement.



### SPECIFICATION

Fibre type:  
TABIX 1.3/50

Dosage:  
100kg/m<sup>3</sup>

Slab thickness:  
30cm

Concrete class:  
C30/37

Surface area:  
3,500m<sup>2</sup>



## The result >

The LKS building in Arrasate-Mondragón, is the first multi-storey building in Spain to utilise a suspended steel fibre reinforced concrete slab structure.

This important project underlines LKS's forward thinking and innovative approach to architecture and engineering by using a steel fibre reinforced concrete solution that is making a positive and lasting difference to the way that multi storey buildings are constructed.

# The world is building on our expertise.

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