Reinforced concrete solutions



# 12,700 tonnes of steel fibres for the Grand Paris Express

# Project overview >

12,700 tonnes of ArcelorMittal HE++ 90/60 high quality steel fibres are being used in 28km of tunnel lining segments beneath the city of Paris.

## Project title: Grand Paris Express

Client: Société du Grand Paris

## Contractor:

- Line 16 Lot 2: Webuild & NGE JV, GIE Alliance
- Line 16 Lot 3: Razel-Bec, SEFI Intrafor, Fayat Metal JV, GIE Alliance
- Line 18 Lot 1: VINCI and SPIE JV,Stradal

## TLS producer:

- Line 16 Lot 2: GIE Alliance
- Line 16 Lot 3: GIE Alliance
- Line 18 Lot 1: Stradal

Location: Paris, France

# Working environment: Subway Distance:

- Line 16 Lot 2 10.7km
- Line 16 Lot 3 5.5km
- Line 18 Lot 1 11.8km

Internal diameter of the tunnels: 8.70m

Duration: 2021 – 2023

Fibres proposed: 12,700 tonnes of HE++ 90/60 for tunnel lining segments to include:

- 5600 tonnes of HE++ 90/60. Line 16 Lot 2
- 2500 tonnes of HE++ 90/60. Line 16 Lot 3
- 4600 tonnes of HE++ 90/60. Line 18 Lot 1

We fully appreciate our partnership with ArcelorMittal, especially for very challenging projects of SFRC precast segments such as the notorious "Grand Paris Express". ArcelorMittal provided a constant and efficient service with the highest level of expertise and constant support. Even most importantly, ArcelorMittal navigated the challenging periods through COVID and global steel market tensions, with very successful supply chain management.

#### Mr Arnoux Cornille Director of the GIE Alliance Concrete Segments Plant

Arcelor/Mittal HE++90/60s enabled us to achieve the high level of concrete performance requested by our client, fully meeting our expectations in terms of quality monitoring and traceability. Arcelor/Mittal provided us with a flawless service on the Grand Paris Express, ensuring steady supplies at all time, which is of paramount importance on these ambitious projects.

Jean Luc Valin Stradal Precast Plant Manager

# The challenge >

Grand Paris Express is the new metro and light rail network beneath the French capital region. Contracted to provide technical support on the steel fibre reinforcement of pre cast tunnel lining segments, Arcelor/Mittal were required to deliver 12,700 tonnes of HE++ 90/60 steel fibres and oversee dosing, mixing and quality testing procedures at each stage of the steel fibre reinforced concrete tunnel lining segment production process.





# The solution >

ArcelorMittal's technical engineers provided detailed guidance throughout the project, including the early development of the project specification, the optimisation of dosage rates, the supervision of performance tests, the installation of dosage equipment and continuous technical support. In total, ArcelorMittal manufactured and delivered 12,700 tonnes of HE++ 90/60 steel fibres.

HE++ 90/60

**Arcelor**Mittal

# The result >

Grand Paris Express project will have a positive impact on the urban environment, extending the French capital's metro and light rail network by 200 kilometres, with 68 stations. Improving connections between the centre of Paris and the surrounding suburbs, the Grand Paris Express is set to improve the local economy and passenger mobility, whilst reducing vehicular traffic and air pollution.

ArcelorMittal Fibres is a major contributor to the development of urban mobility infrastructure projects, supporting worldwide initiatives to reduce traffic and pollution with the supply of steel fibre reinforced concrete solutions.

# The world is building on our expertise.

Contact: fibresupport@arcelormittal.com Visit: www.arcelormittal.com/steelfibres

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