

CASE STUDY

14 07 2021

Pyroguard Protect makes the difference for prestigious Paris project: Tours Duo



Engineered to meet specific project requirements, Pyroguard's range of toughened fire safety glass, Pyroguard Protect, in E30, EI60 and EI120, has been specified for one of the most daring architectural creations ever imagined in Paris: Tours Duo. Installed within the reception hall and circulation areas of the two towers, Pyroguard Protect, which was chosen by fire protection specialists, Pyrometal, has helped architect Ateliers Jean Nouvel achieve his ambitious vision, without compromising on safety.

Due to be completed at the end of 2021, Tours Duo rises on a former industrial site on the edge of the River Seine in the Paris Rive Gauche district and at 180m, DUO-1 is set to be the third tallest building in the capital. The pair of towers, DUO-1 and DUO-2, which lean to form an impressive asymmetrical 'V', will house offices, retail spaces, restaurants, a hotel and a top floor panoramic bar. In the design of the mixed-use scheme, Ateliers Jean Nouvel was tasked to create high performing, aesthetically striking buildings and as such, decided to take a bioclimatic approach to reduce energy use and make the most of the outdoor weather conditions.

Brought on board to supply and install the fire glass structures on the project was specialist, Pyrometal. Oliver SCHAAL, CEO at Pyrometal, said: *“There were many factors to consider for this project. Fire safety, particularly in high-rise buildings, continues to be a topic of increased focus therefore, getting the fire classifications right was crucial. As the project took a bioclimatic approach, the glass specified also had to help with solar control and for a structure that is set to become an iconic landmark in Eastern Paris, aesthetical appearance was of course also key.*

“In addition to the multi-functional requirements of the fire safety glass, the client also wanted glass panes with large dimensions to create open and airy spaces. For these reasons, we approached the technical team at Pyroguard who suggested their Pyroguard Protect range of toughened fire safety glass, as it can be engineered to create bespoke solutions. It also has excellent UV stability – which is exactly what we were looking for. With Pyroguard’s capabilities and technical knowledge, the team were able to develop specific testing to allow us to reach the specific dimensions required for this project.”



To ensure that the fire safety glass was fit for purpose, Pyroguard T-EI60/25-3 was tested in a PYROTEK steel range façade system. The maximum tested size of glass was 1500 x 3600mm and the façade had a 5m vertical span. In fact, a 10% overrun was achieved which will validate some extended sizes – demonstrating the capabilities of the independent fire safety glass manufacturer.

Following the successful testing, Pyroguard Protect was installed throughout DUO-1 and DUO-2. In the reception hall, Pyroguard Protect E1120 was fitted inside PYROTEK steel profiles to form full height glass partitions and in the circulation areas on each floor, around 690m² of E30 was used inside double-leaf doors with E160 glass partitions. The same was also used in the corridor doors as a means of compartmentation, which connects various areas to the stairs and lift landings.



Pyroguard Protect also contributes to the bioclimatic objectives of the project as the solution complies with BREEAM, the world's foremost environmental assessment system for buildings, which sets the standards for both energy efficiency and the health and wellbeing of building users. By minimising heat loss, solar gain and optimising light transmission, Pyroguard's toughened fire safety glass ensures high ratings in the BREEAM "Energy" and "Material" categories.

Giving the best protection for people and property, Pyroguard Protect provides integrity and heat insulation for 30 to 180 minutes (EI classification). The solution also provides 1B1 impact classification without the need for additional counterpanes, high performing acoustic properties and peace of mind throughout the lifespan of the product due to its UV stability.

Oliver SCHAAL continued: *“Due to the logistical constraints of a tower, we followed a strict delivery and installation programme where we needed to complete one level per week. Pyroguard was very prompt in ensuring that we received the fire safety glass on time and at the right time, every time, which really helped us to deliver the fire glass structures to the deadlines.*

“It has been a pleasure to be involved in this project and working together with a partner like Pyroguard has made it much easier. Its solutions combined with the technical expertise enables a positive collaboration.”

Jérôme Bastien, Regional Director at Pyroguard, commented: *“Tours Duo is set to become a landmark in Eastern Paris, and it was an honour to be involved in such a prestigious and ambitious project. Thank you to Pyrometal for choosing Pyroguard – together we have been able to achieve a stunning, functional yet fire safe building.”*

To discover more about Pyroguard Protect please contact our dedicated and experienced Technical Team on +44(0) 1942 710 720 or visit our website www.pyroguard.eu