



# London Heathrow Terminal 5

## United Kingdom



## Project

London Heathrow Terminal 5 is part of the London Heathrow Airport complex, serving the UK capital city of London. The Terminal 5 project included several new buildings; the new terminal, a control tower and railway station.

It was designed to handle 35m passengers a year and was built at a cost of £4bn.

Officially opened in 2008, the main building in the complex is the largest free-standing structure in the United Kingdom being 396 m (1,299 ft.) long, 176 m (577 ft.) wide and 40 m (130 ft.) tall. Its four stories are covered by a single-span undulating steel frame roof, with glass facades angled at 6.5 degrees to the vertical. The area covered by the roof is the size of five football pitches, and each section weighs 2,200 t.

The building's lead architects were from the Richard Rogers Partnership and production design was completed by aviation architects Pascall & Watson. The engineers for the structure were Arup and Mott MacDonald.

**Substrates:** Steel.

**Requirements:** To provide fire protection to the core terminal building which included substructure, roof and facade, superstructure and baggage handling steelwork.

**Specifications:** Substructure – passive fire protection with 90 & 120 mins fire rating.

Roof and Facade steelwork – protective coatings.

Superstructure – passive fire protection with 60 mins fire rating.

Electricity substations – passive fire protection 120 mins fire rating.

**Area coated:** 850,000 litres of FIRETEX® products.

**Client:** BAA.

**Main contractor:** BAA, AMEC – building services, LainO'Rourke, MSCP.

## System

The project had multiple requirements for passive fire protection including coatings to protect over 60, 90 and 120 mins fire ratings.

A range of FIRETEX® products were selected from Sherwin-Williams to achieve appropriate fire protection to the structure. In addition the FIRETEX® range offered easier application and a more aesthetically pleasing finish to exposed steel work. These products included:

**Substructure** – 90 and 120 mins fire protection with Acrolon™ C137V2, Acrolon™ C237 and FIRETEX® M71V2 topcoats.

**Superstructure** – 60 mins fire protection with Acrolon™ C137V2, Acrolon™ C237 and FIRETEX® M71V2 topcoats.

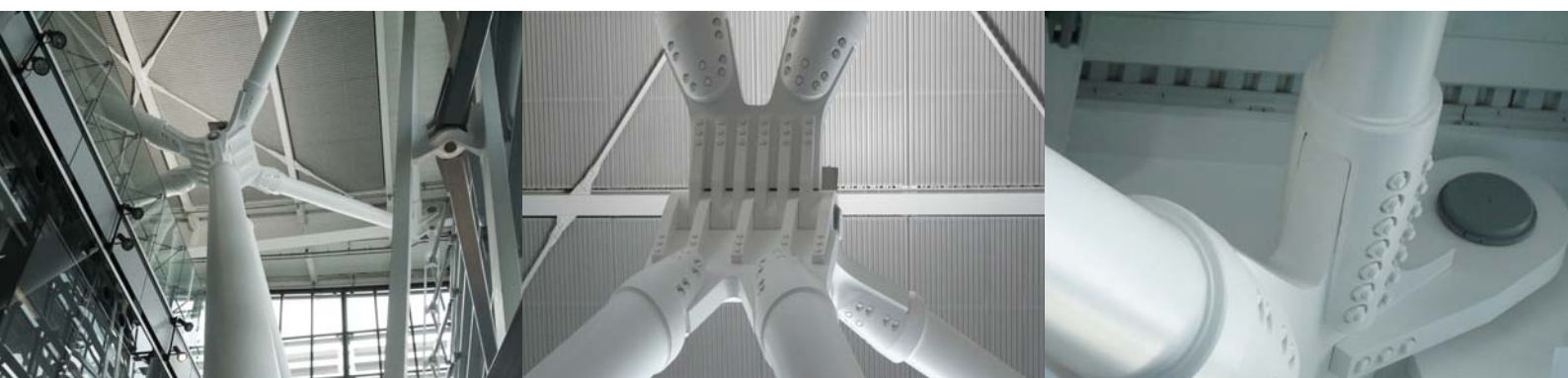
**Electrical sub station** – 120 mins protection with FIRETEX® M95.

**Baggage handling steelwork** – Macropoxy™ M455V2, FIRETEX® FX2000 and FIRETEX® M71V2.

**Windposts** – 60, 90 and 120 mins fire protection with FIRETEX® FX2000, FIRETEX® FX4000, FIRETEX® FX8000.

**Roof steelwork and internal facade** – Macropoxy™ C400V2 and Acrolon™ C237.

**External facade** – Epigrip™ J984\*BS, Macropoxy™ C400V2 MIO and Acrolon™ C137V2.



\* Now superseded by Zinc Clad™ IV E (80%).

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