



## INNOVATIVE. FIRE. SYSTEMS

### PASSIVE. FIRE. PROTECTION

### EL AZHAR TUNNEL – Cairo (Egypt)



#### FIRE PROTECTION – VENTILATION PLANT

The El Azhar road tunnel is a **2,600 m** long urban tunnel with two two-way tubes of 3 m and 4 m clearance. **SCETAUROUTE** was the engineering and Campenon Bernard as general contractor. To meet RWS fire regulations, **FIRE BARRIER 135** was installed under prefabricated arch liners with 70MPA compression strength (after being tested at the SINTEF laboratory) at 47 mm thick, so that an interface temperature of less than 180 degrees could be maintained. The 58,000 m<sup>2</sup> of structures to be protected were installed in 4 months in summer 2001. Rings used to check thicknesses were installed every 1.50 metres; these were also used to smooth the mortar and guarantee a very smooth finish. The fire barrier was then coated with bi-component epoxy paint.

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INNOVATIVE FIRE SYSTEMS – FIRE PROTECTION with FIRE BARRIER 135 – EL AZHAR TUNNEL