



Case Study:  
Installation of FireBarrier®  
135 in the Faver Tunnel, Italy

**FIREMASTER®**

## The challenge

Improvements to the SS 612 highway in the Val di Cembra area of northern Italy meant that a new segment of road had to be aligned to an existing section, which lay at a higher elevation. The solution was the construction of the Faver tunnel, a 9.8m wide, 1.49km long road tunnel.

The Faver tunnel has a distinctive system for the safe evacuation of occupants in case of fire. A false wall built into the tunnel creates a space that is used not only for the routing of tunnel services, but also as access for escape and for emergency services if a fire should occur.

The false wall is made from thin, corrugated steel, of the type also successfully used in the Verla Di Giovo tunnel. This option is more lightweight than the alternative, which is concrete, but it does of course still require the addition of a fire protection product, to ensure that the escape route and access for services remain functional during a fire.

Furthermore, this insulation is also required to protect tunnel walls from heat and the catastrophic structural damage that such heat may cause.

## Benefits of FireBarrier 135 for the Faver project team's requirements

The Faver project team chose Morgan's FireBarrier 135 as the optimal fire protection solution in this case. FireBarrier 135 has many advantages relevant to this project, such as:

- As a refractory product, it can withstand repeated exposure to 1350°C for a long cycle time.
- Quick and easy to install - one single layer application and fast drying time.
- High adhesion strength and, like concrete, strength increases over time.
- Resistant to jet sprays used in cleaning and will not spall when subjected to high temperature water hose sprays during fire fighting.
- Low thicknesses required in order to meet fire protection requirements.

In the Faver tunnel, FireBarrier 135 was sprayed onto steel and supportive steel wire mesh, which had been attached to the steel wall prior to application.



## The Result

**Over 420 tonnes of FireBarrier 135 was applied in the Faver tunnel, over the space of two months. No further protective coating was required.**

**A passive fire protection applied to the exterior of the wall ensures that the structure is insulated from the heat of the fire to prevent collapse and ensure the escape way remains operable during a fire.**

**In addition, insulation of the air in the void behind the wall allows for safe operation of any critical tunnel services and a safe environment for people inside.**

**420  
tonnes of  
FireBarrier 135  
were used**

FireBarrier 135 can be applied to metal or concrete substrates using standard spray equipment, or can be cast into sheet form or applied as dry board



## ABOUT MORGAN ADVANCED MATERIALS



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