



INNOVATIVE. FIRE. SYSTEMS
PASSIVE. FIRE PROTECTION



LIORAN TUNNEL



TEMPORARY FIRE PROTECTION – REAL FIRE TEST

The contract owner, **DDE** of Cantal, assisted by the prime contractor CETE, wanted to perform real fire tests in the tunnel, to test the ventilation and smoke extraction equipment installed. For this purpose, felt pads insulated against high temperature and 50 mm thick, were unrolled and fixed with a plenum to guarantee a maximum temperature of 60 degrees on the radiating cables and cabletroughs already in service. A burning light vehicle reaching 5 MW should not heat the tunnel walls or damage the paintwork already in place. Three consecutive tests were performed and the felt provided by



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INNOVATIVE FIRE SYSTEMS fulfilled its mission perfectly. Four hours later, the insulating felt was removed and the tunnel made accessible once more.

FIRE PROTECTION – LEAD-IN SHAFTS



Extra level N3 thermal protection was installed in all the lead-in shafts, ensuring a maximum temperature of 60 degrees inside the shafts. A complex composed of **FIRE BARRIER 135** refractory mortar and high-temperature resistant insulating felt was therefore installed in forty shafts.

