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AESTUVER Project & Solution

Bergisel Tunnel (A 13 Brenner autobahn), Austria

- Construction completed in June 2016
- Modernisation of fire protection system while maintaining traffic flow
- AESTUVER Tx fire-protection boards 30 mm (19,000 m² installed on site in only 12 weeks)

Bergisel Tunnel (A 13 Brenner autobahn), Austria

Construction project

Since its original completion, the Brenner autobahn was always one of the most highly frequented road sections in Europe. The Bergisel Tunnel near Innsbruck is one of the busiest motorway sections with a traffic volume of 35,000 vehicles per day. In 2016, the security systems in the tunnel were brought up to date for an investment totalling around 16 million Euro.



The fire-protection boards were installed onto the tunnel ceiling from lifting platforms. Inspection: Täby Brandskyddsteknik AB

Construction task

Renovation work also covered structural fire-protection systems. Due to the high traffic volume on this section, work had to take place while ensuring continued traffic flow as far as possible.

- Minimise tunnel closure times and congestion on secondary roads
- Achieve Protection Level 3 according to RVS Directive*
- Ensure resistance to water, frost and thawing salt



Finally, the walls received a structural lining on top of which the fire-protection cladding was mounted. Inspection: Täby Brandskyddsteknik AB

Solution

A single-layer cladding comprising 30 mm thick AESTUVER Tx fire-protection boards was mounted directly on the existing concrete shell.

- Secured by stainless steel concrete screws
- Maximum 3 mm gap width (backed by 100 mm board strips 10 mm thick)

Compared with the original renovation concept, this solution resulted in a number of advantages:

- Efficient construction method thanks to fast, dry processing.
- The entire project was additionally shortened since no extra drying times were required and other work could be executed in parallel.
- Easy to dismantle to carry out any repairs needed.

* "Structural fire protection in road tunnels": concrete surface temperature of ≤ 350 °C for three hours and a temperature at the reinforcement of ≤ 50 °C at a depth of 40 mm

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Summary	
Project	Bergisel tunnel (A 13 Brenner autobahn)
Client	ASFiNAG (Austrian motorway and highway financing company)
General contractor	Strabag, Direktion AF, Hochbau Division – Road Construction, Wattens
Fire-protection	Täby Brandskydds Teknik (TBT), Täby
Project management	BPA Projektierung-Baumanagement, Aldrans
On-site construction supervision	Bernard ZT GmbH, Hall in Tyrol

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