Project Report/May 2026

Economical and Durable Surface Protection for Tunnel Inner Lining: Schemelsberg Tunnel B 39

The Schemelsberg Tunnel is part of the B 39 federal highway near Weinsberg in the district of Heilbronn, Baden-Württemberg, Germany. As a bypass, it is used by around 20,000 cars, buses, lorries and motorcycles every day and it is particularly important for commuters.

The tunnel was thoroughly modernised over its total length of 676 metres and equipped with the latest safety technology and rescue tunnels.

The side walls of the tunnel inner shells – a total area of 4,500 square metres – were given surface protection with **StoConcrete Protect Prime TU 100** up to a height of four metres.
The construction experts decided to use this system because it offered the following advantages: reduced expenditure for cleaning and maintenance, permanent protection of the building structure, high cost-effectiveness, reduced closure times and more safety in the tunnel.

StoConcrete Protect Prime TU 100 permanently protects the building fabric against exhaust gases and water-soluble pollutants. It is tested and approved surface protection system OS-C (OS 4). The system is highly mechanically resistant and resistant to strong chemical attack, alkalis, hydrocarbons and petrol.

Certified for excellent cleanability and low susceptibility to soiling:
Top grade according to EN 11998

Thanks to its optimised surface properties, **StoConcrete Protect Prime TU 100** is extremely easy to clean and is less susceptible to soiling. The water consumption per cleaning cycle is reduced. Chemical cleaning agents are not required. The bright-coloured, non-reflective surface of the tunnel system ensures greater safety. In addition, the StoPox TU 100 coating fulfils the requirements for an anti-graffiti system (AGS 1) in accordance with TL/TP-ING of the German Federal Highway Research Institute.

The **StoConcrete Protect Prime TU 100** tunnel protection system reduces cleaning effort and costs in the long term, while at the same time reducing traffic-related closure times because of extended cleaning intervals.

The entrance and exit areas of the Schemelsberg tunnel were coated with StoPur WV 60 due to the increased UV exposure.

Properties of **StoConcrete Protect Prime TU 100**

- StoCretec EP coating build-up for the protection and visual design of inner tunnel linings
- On vertical and sloping surfaces
- For surface levelling and sealing blow-holes and pores
- Very low susceptibility to soiling
- Very good cleanability even without additional cleaning agents
- High mechanical resistance
- Optimised light reflexion coefficient and gloss level
- Resistance to severe chemical attack (EN 13529)
- High resistance to alkalis, hydrocarbons and petrol fuels
- Low water absorption
- On concrete and reinforced concrete substrates
- Limited combustibility system build-up
- Very good water vapour permeability - class I (EN ISO 7783)In accordance with EN 1504-2 Surface Protection Systems for Concrete, EN 1504-9 Repair Principle 8 in accordance with method 8.2, EN 11998 Coating Materials
- BASt (German Federal Highway Research Institute) listed
- OS 4 system in accordance with DIN V 18026:2006-06
- Colour spectrum: white and tintable on request
- Simple and quickly overcoatable, application by paint brush, roller or by sprayer
- Optional coating with StoPur WV 60 for UV stress

Who & What

Name of reference:	Tunnel inner lining refurbishment, DE
Building Owner:	German Regional Council Stuttgart, Heilbronn, DE
Planning:	ZPP Ingenieure, Bochum, DE
Location:	German Federal Road 39, Weinsberg, DE
Realisation:	2/2026
StoCretec Competence:	**StoConcrete Protect Prime TU 100** Fairing coat StoCrete TF 204 Coating StoPox TU 100 Sealing coat StoPur WV 60 Corrosion protection StoCrete TK Bonding agent StoCrete TH 200 Repair mortar StoCrete TG 202
Applicator:	Leonhard Weiss GmbH & Co. KG, Göppingen, DE
Photos:	Courtesy of Regional Council Stuttgart, DE


Foto: Regierungspräsidium Stuttgart, DE

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