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KNOW WHY.

Reference | UHPC with fibres

BRIDGE REHABILITATION AUTOBAHN A9

RIDDES | SWITZERLAND

Rehabilitation of the longest road bridge in Switzerland.

PROJECT INFORMATION

Project	Bridge rehabilitation
Location	Riddes, Valais, Switzerland
Application	UHPC with fibres
Component	50mm thick UHPFRC roadway layer
Construction time	June – October 2021
Requirements	High durability, structural sealing
Concrete	UHPFRC

Fibretype	DM 14/0.175
Amount of fibres	400 t
Total volume	1,500 m^3 concrete

SPECIAL FEATURE

With its 1,250m, the Riddes road bridge is the longest in Switzerland and crosses the A 9 freeway, two national roads and the River Rohne. Due to numerous advantages of UHPC with fibres, such as durability and ductility, the significant deficiencies of the viaduct are addressed with steel fibre-reinforced ultra-high performance concrete.

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UP TO 10,000 VEHICLES DAILY - **A SAFE RIDE ON UHPC**

The well-known viaduct from the seventies is getting on in years. Most recently, the maximum vehicle weight even had to be reduced from 40 tons to 3.5 tons. The prestressed concrete box girder structure showed considerable water leaks, corrosion at the prestressing cables and the reinforcement as well as extensive concrete damage due to an alkali aggregate reaction.

In order to make the bridge passable for heavy traffic again, it was decided to rehabilitate the bridge with ultra-high performance fibre-reinforced concrete, removing the old road surface and the damaged structural concrete. All damaged areas on the box girders and the entire pavement were rehabilitated and reinforced with a 50 mm thick layer of UHPC. In addition to reinforcing the structure, the ultra-high strength steel fiber reinforced concrete also serves as a structural sealing. Thus, the busy bridge can be opened again for the very large trucks in the future.

You can find more interesting projects and current topics related to fiber concrete on our website. Visit: krampeharex.com/en/blog

OTHER **PROJECTS**

CATARINA BRIDGE
Leiden / Netherlands

Application: UHPC with fibres
Length: 36 m
Fibretype: DG 12.5/0.3 E304

FACADE ARCHITECTURE
Odense / Denmark

Application: UHPC with fibres
Fibre content: 140 kg/m³
Fibretype: DG 12.5/0.3 E304

ROADWAY REHABILITATION A61
Kerpen / Germany

Application: Traffic areas
Fibre content: 40 kg/m³
Fibretype: DE 50/0.8 N

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