



Tunnel Gubrist (CH) Sheet Waterproofing

Country	Switzerland
Type	Motorway Tunnel
Client	Federal roads office - ASTRA
Main Contractor	Marti Tunnel AG
Execution of the work	Renesco AG
Designer	IG AHB, c/o Amberg Engineering
Construction Period	2019-2020

Project Description

The 3km long Gubrist tunnel on Zürich's northern bypass is one of Switzerland's busiest motorways. In order to increase its capacity, a third tunnel tube is being built alongside the two existing tubes. The project – Lot 201 – is part of the northern bypass expansion and includes the following main elements:

- Tunnel excavation by drill & blast/ excavator, cutting unit, 3km
- 12 x cross-passages
- Portal area Affoltern, cut & cover section, 77m
- Portal area Weinigen, cut & cover section, 223m

Geology

Mostly interbedded layers of sandstone, silt and marl

Scope of Service

Supply & Installation of the waterproofing system, umbrella/ drained system.

- 2mm PVC-P acc. to SIA 272 (Swiss standard)
- Dimple sheet, PE, 8mm stud height
- 900g/sqm polypropylene (PP) geotextile
- Protection Sheet membrane, PVC-P, 4mm
- Shotcrete evenness of $B_A : B_T$: 1:10
- Shotcrete roughness of R_t : 4-16mm



1. Design Concept
2. Portal area Weinigen
3. Mined Service center