

The project had been discussed for more than 40 years before the three-laned road (width 11.50 m) was finally constructed in 2002. The required water protection measurement was performed in four working steps according to the planning of the designing office Misera in Freiburg:

- 1)
A 10 cm thick sand layer was installed over the prepared subgrade
- 2)
A needlepunched GCL Bentofix® BFG 5000 followed serving as barrier according to German requirements
- 3)
In order to prevent damages on the GCL caused by coarse-grained and sharp-edged cover material, a needlepunched Secutex® R504 nonwoven was installed upon the GCL
- 4)
The road superstructure according RstO 86/89, construction class II, line 1 completed the sealing system

At the official demonstration on site that finally took place on 31st August 2002, the GCL was installed and the advantages of needlepunched GCLs were described as follows:

- simple installation
- robustness against installation stress
- factory-manufactured overlaps

The construction company Gebr. Pontiggia GmbH & Co. KG had invited representatives from the Road Construction Agency Freiburg, from the Building Material and Soil Examination Facility Freiburg and from the local press to attend the installation that was performed by the GCL manufacturer NAUE GmbH & Co. KG and its installation partner Ludwig Kunststoffe OHG.

„This is the first time that a carpet is rolled out when I show up“ was the joking comment of the construction manager. Of course, he meant the GCL as environmental protection sealing system that is located in a protection zone IIIB and II.

In the preliminary stages of the project, it was already known that the installation of the sealing system would have an important influence on the entire project procedure. The excellent cooperation between the installer and the construction company as well as the self-sealing overlap, one of many characteristics of the selected GCL, enabled an installation of almost 10,000 m² GCL in only 3 days.

Year of construction: 2002

City / Country: Wasser bei Freiburg, Deutschland

Installed products:

Bentofix® BFG 5000 10.000 sqm

Secutex® R504 10.000 sqm



Typical RiStWag cross section



Installation of Bentofix®



Covering of Bentofix® GCL



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