

Executive Summary

The first time the cold recycling system involving pitch-containing construction materials was used in the state Brandenburg, was during the renovation of the federal highway L 72 / L 113 in 2010. These were construction materials out of the project itself and contaminated materials of an existing camp.

The approximately 2 km long track renewal, of which about 1400 m are part of the state of Brandenburg and about 600 m of the state of Sachsen-Anhalt, was on average 4,80 m wide and was widened during the renovation to 6 m on both sides.

The previously insufficient carrying capacity had led to crack formations and asphalt breakaways. The deflection which was measured with Benkelman- beams revealed an undersizing. The calculated load-bearing corresponded to construction class VI requirements. According to the client's requirements, the roadway fixing should have been constructed for the traffic load of a construction class IV after the cold recycling system renovation.

With the finished renovation using the cold recycling system – the bonded surface consists out of 10 cm asphalt and a 20 cm-thick cold-recycling layer (bitumen dominant) – the client's requirements have been fulfilled. The deflection values measurement and the subsequently calculated carrying capacity proof this.

The advantage of using the cold recycling system at this construction project in comparison to the common superstructure system was mainly the homogenization of the surface over the whole roadway width including the extension area und the additional environmental utilization of the pitch-containing construction materials.

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