

Performance properties of asphalt mixes for rich bottom layers (RBL)

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Abstract. The binder content of asphalt mixes has an important influence on the performance properties. Higher binder content improves fatigue resistance. That is why the concept of RBL was developed in USA and applied for “perpetual pavements”. However excessive binder content could lead to the decrease of the mix stiffness and to permanent deformations of asphalt pavement during hot summer. The advantages and limitations of RBL concept have been studied in research project CESTI. Fatigue tests of mixes with road bitumen and polymer modified bitumen and RBL were realised. Deformation behaviour of these mixes was also evaluated. The experience from the test section with RBL laid in 2015 will be presented. The results corresponded to expectations. However, low void content was obtained on one subsection. In spite of it, there were no permanent deformations during summer 2016. The analysis of methods for the prediction of the permanent deformation was also undertaken in research project CESTI. Some information about the results of these analysis related to the use of RBL will be also briefly mentioned.