

Short-term ageing of bituminous binders with using method RCAT with mastic

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The resistance of bituminous binders to ageing is one of the main factors influencing the lifetime of pavement. The process of ageing of bituminous binders involves changes in mechanical and chemical properties. There are several methods used in laboratory to simulate the ageing of bituminous binders. The first phase of ageing process includes rapid short-term ageing that occurs during production, storage and application. The second phase of ageing process is slow and long-term ageing during pavement lifetime. In this study, short-time ageing of bituminous binders was performed using methods RTFOT, RCAT and RCAT with mastic at standardized temperature of 163 °C. Laboratory method RCAT with mastic is closer to real conditions in the asphalt plant than standard RTFOT method. The influence of mastic on the mechanical-physical properties of two unmodified bituminous binders was studied.