

MIX DESIGN CONSIDERATIONS FOR ASPHALT WEARING COURSES WITH HIGH RECLAIMED ASPHALT CONTENT

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ABSTRACT

The amount of recycling of reclaimed asphalt (RA) in new asphalt pavements has grown up to the point that it is no longer simply an isolated green construction alternative but a common practice in almost all Europe. However, in general the share of recycling the RA in new asphalt courses is rather lower than it could be technically, especially in wearing layers. This paper presents the first results of a research on the feasibility of going toward 100% recycling of asphalt pavements into surface courses. The research is carried out within a two-year CEDR Transnational Road Research project, AllBack2Pave, coordinated by the Technische Universität Dresden in Germany together with two European university partners: University of Nottingham in the United Kingdom and University of Palermo in Italy. The main objective of the project is to establish, through laboratory test on binders and asphalt mixes, whether the use of high rates of RA is feasible in developing mixes with high level of durability. The paper focuses on one of the major challenges faced in the project: implementation of proper laboratory tests to characterize the RA and development of sound design practices to account the effect of the RA on the volumetric and mechanical properties of the final mix.