

3rd INTERNATIONAL CONFERENCE
BITUMINOUS MIXTURES AND PAVEMENTS
Thessaloniki, Greece, 21-22 November 2002

CRUSHED GLASS IN ASPHALT FOR BINDER COURSE AND ROADBASE LAYERS

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ABSTRACT

With political encouragement, there are attempts to make use of waste materials in asphalt to replace virgin aggregate. As part of this process, RMC Aggregates (UK) Limited have developed a macadam mixture with 30 % crushed glass content under the trade name *Glasphalt*. As part of an assessment of *Glasphalt*, a pilot-scale trial of binder course with 20 mm dense bitumen macadam, both with and without 30 % of the aggregate replaced with crushed glass, was carried out at an RMC Depot near Birmingham. Results from laboratory testing on both materials have been compared as Stage 3 of the UK *Highways Agency Procedure for Evaluating New Materials*. Subsequently, road trials were carried out in Milton Keynes, Stratford-upon-Avon, Mansfield and Sleaford, each having sections both with and without 30 % of crushed glass. In the case of the Mansfield trial, there was also a section of *Glasphalt* incorporating the *Wetfix* wetting agent additive whilst, in the Sleaford trial, 20 % recycled planings were also used. These trials have been monitored by TRL Limited, and the results, together with the position that the material has reached in the assessment programme, are presented in this report.

KEY WORDS: Asphalt, Secondary materials, Glass, Sustainability, Performance