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RUBBERISED BITUMEN BASED NATURAL RUBBER: AN INNOVATIVE AND SUSTAINABLE TECHNOLOGY FOR ROAD PAVEMENTS

Rubberised pavement is consistent with the concept of sustainability and when engineered properly, it can potentially provide a more cost-effective alternative to conventional road practices. One factor of concern in alternative technology is the expected additional material costs, however, the many benefits associated with rubberised pavements including its prolonged service life would provide the cost effectiveness of this technology. In the presentation, the preparation and properties of NR modified bitumen is described, of which MRB technology is applied to construct a 1 km dual carriageway road. The salient findings of the study are summarised as follows: NR binder modification significantly improved both complex shear modulus, G^ and phase angle, parameters which had a significant impact on the rutting performance of the evaluated binder. The road performance such as roughness, rutting and crack distribution remains unchanged after one year.*

ABSTRACT