

## **Flexural characteristics of rubberized cement-stabilized crushed aggregate for pavement structure**

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The purpose of this paper is to investigate the flexural characteristics and to quantitatively study the flexural-induced cracking of reference and rubberized cement stabilized aggregate mixtures. Four volumetric replacement percentages of 6 mm fraction size were used. This modification was found to affect the material strength detrimentally. However, material toughness was improved and stiffness was reduced. The latter findings were supported by quantitative assessment of the fractured surfaces which revealed more tortuous and rougher cracking as a result of rubber content increasing. This, in turn, may ensure a good load transfer across the cracks after their formation. Overall, using rubber in pavement construction is a sustainable solution that ensures consumption of large quantities of these waste materials. At the same time, it may be considered as a promising method to reduce cracking tendency and sensitivity which may improve shrinkage, thermal and fatigue performance.