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# Laboratory study on the use of copper slag and RAP in WMA pavements

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## Abstract

This paper presents the results of an experimental investigation carried out on warm mix asphalt (WMA) incorporated with copper slag (CS) and reclaimed asphalt pavement (RAP) material. Both CS and RAP are considered as waste materials and cause a lot of environmental problems. Their use in asphalt pavements will solve the landfill problems associated with them. Also, to save energy and reduce carbon emissions, WMA technology was adopted in this study. A total of nine combinations of warm mixes were prepared with varying proportions of CS (0–15%) and RAP (0–30%). The use of CS improved Marshall stability, indirect tensile strength, and tensile strength ratio. The introduction of CS and RAP