Review of: "Analytical Study and Amelioration of Plastic Pavement Material Quality"

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Potential competing interests: No potential competing interests to declare.

This article addresses, from an engineering and materials science perspective, the problem of solid waste management in urban areas, focusing on the challenges given by plastic waste in low- and middle-income countries. The work proposes the reuse of polyethylene terephthalate (PET) and polypropylene (PP) as binding materials in the production of plastic pavements. The research is interesting, covering various formulations of PET and PP in pavement samples and evaluating their mechanical properties to investigate their suitability in different urban environments. The methodology employed in combining PET and PP to enhance the binding characteristics of the pavement is well detailed, providing a good foundation for the experimental design and subsequent analysis of results.

The findings of the study are relevant to the studied problem, revealing that specific formulations of PET and PP in the pavement can withstand considerable stress and are suitable for use in areas with different traffic volumes and environmental conditions. Overall, the document provides valuable insights into the development of sustainable construction materials, offering a promising path to address the global challenge of plastic waste.

As areas for opportunity and improvement, the authors are suggested to rework the figures and diagrams presented, as, although understandable, they could benefit from better quality. It is suggested to work on open-source platforms like Matplotlib, ggplot, or seaborn to generate more attractive graphs; alternatively, if they have licenses for Origin Lab, these would also be a better option.