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

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Potential competing interests: No potential competing interests to declare.

The manuscript titled "Analytical Study and Improvement of Plastic Pavement Material Quality" is a compelling article focusing on locally produced plastic pavement in Cameroon. While the manuscript is recommended for publication, I recommend some revisions in terms of English and addressing the following comments before resubmission.

1. Introduction:

- The manuscript would benefit from providing additional clarity regarding the novelty of the approach adopted in this research. Specifically, elucidate the unique aspects or innovative methods employed in the study.
- Additionally, when stating, "It is recommended that paving blocks made from recycled plastic waste be used...," it is essential to provide a reference supporting or reinforcing this recommendation.
- Furthermore, the rationale behind selecting polypropylene (PP) and polyethylene terephthalate (PET) over other types of plastic waste should be explained. Elaborate on the specific properties or advantages of PP and PET that make them suitable choices for the proposed application in pavement construction. This information will enhance the understanding of the decision-making process and contribute to the robustness of the research findings.

2. Materials/Methods:

- It is strongly recommended to enhance the clarity and visual appeal of the manuscript by incorporating a flow chart illustrating the preparation process. Each step in the process should be accompanied by corresponding pictures to facilitate a better understanding of the methodology.
- Additionally, including a sample table with different ratios would be beneficial for readers seeking a quick reference. Assigning a nomenclature for each sample is advised to facilitate future use and easy cross-referencing.

3. Results and discussion

- To enhance the comprehensiveness of the manuscript, consider incorporating a table that provides a comprehensive overview of all samples, including their characteristics. This table should allow for a direct comparison with concrete pavement and pure plastic. Ensure that key properties and performance indicators are included for each sample, aiding readers in understanding the variations among different mixtures.
- In the discussion section, it is crucial to address why the pavement characteristics change with varying mixing ratios. Offer insights into the specific factors influencing these changes, such as the physical and mechanical properties of the

materials involved, and provide a thoughtful analysis of the implications of these variations.

- Additionally, to strengthen the manuscript, include a discussion on the challenges associated with plastic composite pavement. Explore any limitations or hurdles encountered during the research process or potential issues that might arise in practical applications. Furthermore, delve into the long-term effects of plastic composite pavement, considering aspects such as durability, maintenance requirements, and overall sustainability over an extended period.
- To provide a more comprehensive evaluation, compare the environmental viability of plastic composite pavement with other plastic recycling processes. This comparative analysis will contribute to a broader understanding of the environmental impact of the proposed pavement solution in the context of plastic recycling practices.