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 topic of the research is pertinent, addressing a significant issue currently faced. However, several aspects need to be addressed to elevate the article to the standard of useful scholarly literature:

1. The authors describe the study as "Analytical," yet it resembles an experimental project more closely. Analytical studies typically involve the examination and interpretation of existing data or observations to uncover patterns, relationships, or trends.
2. Authors need to clarify which category of pavement material they are focusing on. Will it be a replacement for conventional concrete or bituminous crust used in roads, or will it pertain exclusively to paver blocks, as suggested by images and samples? If it is the latter, the title may need adjustment accordingly.
3. The definition of the percentages of each material used should be explained. Have the authors referred to previous literature while deciding on the percentages of both materials?
4. Significant improvements are needed in the language, clarity of images, and tables. For instance, the charts are not clear, and Figure 6's first row is undefined.
5. The authors should initially define the abbreviation and the combination of percentages of each material, without which the details remain unclear.
6. The process undertaken after pouring the mixed material into molds to create such blocks needs detailing, specifically the amount of compressive force required and the density at which the material is compacted in the mold.
7. Units are not correctly written; for example, N/mm2 should be expressed as N/mm^2
8. The term "Fine sand aggregate" needs clarification. Is it fine sand or aggregate? The classification of sand or aggregate should follow the standard classification system. In section headings, "Fine aggregate" is mentioned, yet the overall material property is undefined.
9. The authors have investigated compressive and flexural strengths using the same machine, but clarity is lacking on how the flexural test is conducted. Moreover, the setup for the compressive test is not clearly depicted through images. The relevance of both tests to the study and their setups must be defined.
10. The choice of using PET and PP in paver blocks over other recycling methods needs justification, especially given the substantial chances of microplastic production during its use.
11. The fate of these blocks at the end of their life cycle, their sustainability, and disposal methods must be assessed and incorporated into the discussion.
12. The novality of the paper is not written, there are multiple similar works available.

Overall, the topic is important, but the approach to research is basic. The paper will require multiple revisions before it is suitable for publication in a reputable journal.