

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 paper investigated the effects of combining two plastics, polypropylene (PP) and polyethylene terephthalate (PET), as binding materials in the production of plastic pavement. The topic and scope of this paper are of interest to researchers in solid waste management and recycling. The results and discussion support most of the conclusions in this paper. However, there are several issues that need to be addressed.

1. The keywords are too broad and overlapping with each other. Using some specific keywords will help readers to locate your publication. Besides, plastics, PP, and PET belong to the same category. I would suggest modifying this section and carefully choosing the most appropriate keywords.
2. The references are not up to date. If there are not sufficient publications in this research area in 5 years, it means this research project is not attracting attention from other scholars. I would suggest the author add more recent publications and reports, ideally after 2020.
3. If the authors claim that plastic pollution is a global issue, then it is essential to add a brief discussion of the current plastic waste pollution and recycling situation in different countries/regions. For instance, "Schaerer, Laura G., et al. "Killing two birds with one stone: Chemical and biological upcycling of polyethylene terephthalate plastics into food." *Trends in biotechnology* 41.2 (2023): 184-196." discussed the current situation and policy in different countries/regions.
4. Page 3, "It is recommended that...of a single pavement". The authors need to elaborate on the reason why they chose PP and PET rather than other plastics to study in this project. Do PP and PET present some favorable advantages in this project? Is it because they are more widely disposed of in the local/global environment? Please explain.
5. Most plastic wastes can be decomposed slowly in the natural environment when certain conditions exist, such as water, acid/alkaline, light, waves, etc. If people utilize plastics as a binding material in pavement, will that be a potential risk after some time? How do the authors evaluate this issue and propose a solution?
6. Page 3, "crushed to particle sizes between 4 and 10 mm". The particle size distribution results should be included in this manuscript.