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

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Potential competing interests: No potential competing interests to declare.

Analytical Study and Amelioration of Plastic Pavement Material Quality

The authors are examining the possibility of using polyethylene terephthalate (PET) and polypropylene (PP) as plastic waste in the field of sidewalk construction (construction of road infrastructure). This domain is not something new, and the proposed work is not very different from some papers already published by other authors.

There are some aspects, both in the form and in the material of the manuscript, that should be improved. So, I recommend that the authors rewrite the manuscript considering the following comments.

1/ Are there any data in the literature? You have to add new references (2020-2024) related to this subject.

2/ It is necessary to give some information on the characterization of Plastic Pavement Material (porosity, specific area, pores diameter, etc.).

3/ Is the PET used in this work in an amorphous or crystalline structure?

4/ **2. Materials and Methods**

Waste plastics as binding elements

Polyethylene terephthalate (PET) is composed mainly of water bottles, sweet drinks, and juice bottles with the same basic material properties and a density of 1.38-1.39 g/cm^3, a melting point of 113°C–135°C, and the chemical symbol $(C_2H_4)_n$. This formula is false. The correct formula of PET is $(C_{10}H_8O_4)_n$.

5/ I think that Figures 1, 2, 3, 4, and 5 are not necessary.