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

Julija Volmajer Valh[1]

1 University of Maribor

Potential competing interests: No potential competing interests to declare.

The manuscript presents plastic pavement material quality. The concept of the manuscript is interesting. The manuscript has some ambiguities that need to be clarified..

General comments:

1. Write the space between the number and the unit across the entire manuscript, e.g. 10 %, 200 °C etc.
2. Write potencies in superscript throughout the manuscript, e.g. N/mm^2, g/cm^3 etc.
3. Describe the abbreviation when it is used for the first time, e.g. AC.

Materials and Methods

Waste plastics as building elements

Describe how the collection and separation took place. How did you know which waste was PP and which was PET? Did you analyse the crushed PET and PP particles? How did you determine the density and melting point of crushed PET and PP particles? Add this information.

The chemical formula for PET is $(C_{10}H_8O_4)_n$; you wrote the chemical symbol (C_2H_4)n, which is incorrect, corrected.

In the chemical formula of PP n must be subscripted.

Fine aggregate. Delete the dot.

Fine aggregate

Write down which sand you have taken, specifications?

Preparation of the specimens

From the sentence “The effect of combining these two plastics was also evaluated by combining the two different types of plastics in the ratios 1:2:7, 1.5:1.5:7, and 2:1:7” it is not clear which part is PET, PP, and sand. Corrected.

Indicate which type of chamber you used?

Results and Discussion

Reduce the font size in the diagrams in Figures 6 to 12 and center the x-axis plot.

Figure 6 and Figure 8; correct the diagrams, as it is not clear what is on the x and y axes.

Comparison between values obtained from samples and values obtained from pavements produced in Cameroon

Explain what kind of pavements are used in Cameroon so far, explain the composition, and describe the materials.

A very important part that was not mentioned in the study is the negative impact of polymeric materials on the environment, especially in terms of leaching. This part needs to be added.