Review of: "Effective use of Waste Materials: A Case Study of Utilization of Fly Ash in Flexible Pavement Structures"

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Potential competing interests: No potential competing interests to declare.

In this paper, we review its utilization in construction from different aspects and attempt to fill the gap within the literature with a critical review of fly ash usage in pavement construction engineering for the last few decades.

1. The title should be revised to make it clear that it is a review.
2. The abstract is too complex and needs to be revised to succinctly and concisely state the purpose, significance, methodology, and results of the study.
3. Funding and potential competing interests should be added after the conclusion.
4. Author information should only be given under the title; all others should be deleted.
5. The format and size of the text in the graphic abstract should be the same and organized. In addition, it would be better if you add pictures of these stages.
6. In the introduction section, studies appropriate to the purpose of the study are not included, and the purpose of the study is unclear. However, the references given are very insufficient; additions should be made to emphasise the importance of the subject. At the end of this section, information about how the study was not carried out and the results were not obtained should be given. Also, this section is too complicated and long. It should be rewritten accordingly. More publications on fly ash and tailings should be added to demonstrate the importance of the study.

Effects of puzzolanic materials in surface paste disposal by pilot-scale tests: observation of physical changes. International Journal of Environmental Science and Technology, 18, 949-964.

Utilization of tailings in concrete products: A review. Construction and Building Materials, 360, 129574.

(2020). The effect of different fineness values of Afşin Elbistan fly ash on permeability in concrete. Challenge, 6(2), 73-83.

(2022). The investigation of geochemical and geomechanical properties in surface paste disposal by pilot-scale tests. International Journal of Mining, Reclamation and Environment, 36(8), 537-551.

(2023). Effect of reduced fineness of fly ash used on the Alkali–Silica Reaction (ASR) of concrete. Iranian Journal of Science and Technology, Transactions of Civil Engineering, 47(4), 2203-2217.

(2023). Investigation of the usability of industrial mining wastes in agriculture. Frontiers in Environmental Science.

1. It would be better to write the Properties of Fly Ash, Classes of Fly Ash, and Table 1 parts separately as a material

section.

2. The information about inorganic binders and sand should be increased, especially sharing the chemical and physical properties in the article, which is important for those who will do or develop this study later.
3. Title of Figure 1 not very clear; please revise.
4. There are errors in sub-indices and grammatical errors that need to be corrected.
5. Categorizing the studies in the literature as tables or figures in terms of common or different aspects will contribute to making the article more understandable.
6. Summary and Recommendations: The results section should be revised. It should be shorter, more concise, and in the form of the differences of the study, its contribution to the literature, and suggestions for future researchers.