

Paper: “Enhancing Hygiene and Technical Properties of Ceramic Tiles through Moroccan Phosphate Additives”

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Peer review:

Reviewer 1: Blinded

Reviewer 2: Imtiaz ud-Din
Quaid-e-Azam University Islamabad, Pakistan

Reviewer 3: Faizan ur Rehman Qaiser
COMSATS University Islamabad, Pakistan

Reviewer Z:

Recommendation: Revisions Required

The TITLE is clear and it is adequate to the content of the article.

Yes, but for greater clarity and conciseness. Here is a suggestion :
Enhancing Hygiene and Technical Properties of Ceramic Tiles through Moroccan Phosphate Additives

The ABSTRACT clearly presents objects, methods, and results.

Yes,
The aims of the study are clearly indicated as being the manufacture of ceramic tiles with improved technical and hygienic properties by incorporating phosphate products into the formulation.
The methods are also explained.
The results are well presented.
However, to make the abstract more readable, you could consider dividing the information into shorter sentences.

There are a few grammatical errors and spelling mistakes in this article.

yes, a revision of grammar as well as spelling is necessary, in view of the presence of many mistakes of this kind

The study METHODS are explained clearly.

Yes, the METHODS section is very clearly explained.

The body of the paper is clear and does not contain errors.

yes, is clear, the paper is well-structured and well-written

The CONCLUSION or summary is accurate and supported by the content.

I suggest revising the conclusion, it is generally advisable to keep the conclusion concise and focused. The main purpose of a conclusion is to summarise the key points, restate the main findings and provide any necessary recommendations or implications.

The list of REFERENCES is comprehensive and appropriate.

yes

Please rate the TITLE of this paper.

[Poor] **1-5** [Excellent]

4

Please rate the ABSTRACT of this paper.

[Poor] **1-5** [Excellent]

4

Please rate the LANGUAGE of this paper.

[Poor] **1-5** [Excellent]

4

Please rate the METHODS of this paper.

[Poor] **1-5** [Excellent]

4

Please rate the BODY of this paper.

[Poor] **1-5** [Excellent]

5

Please rate the CONCLUSION of this paper.

[Poor] **1-5** [Excellent]

2

Please rate the REFERENCES of this paper.

[Poor] **1-5** [Excellent]

Overall Recommendation!!!

Accepted, minor revision needed

Comments and Suggestions to the Author(s):

The manuscript is well written and clearly structured, it just needs a few revisions to make it suitable for scientific publication

Reviewer c:

Recommendation: Revisions Required

The TITLE is clear and it is adequate to the content of the article.

The Title of this manuscript is clear but too long.

The new title is suggested as follows

"Optimizing the Hygiene of Clay-Based Ceramic Tiles through Moroccan Phosphate: A Geotechnical Analysis"

The ABSTRACT clearly presents objects, methods, and results.

In the abstract, the objective and results are clearly explained but the methodology part is missing. It is highly recommended to add a few lines related to methodology.

There are a few grammatical errors and spelling mistakes in this article.

Few grammatical errors but no spelling mistakes

The study METHODS are explained clearly.

The methodological part is now explained clearly, needs improvement as suggested in the reviewer's comments

The body of the paper is clear and does not contain errors.

The body of the paper is clear and needs no improvement

The CONCLUSION or summary is accurate and supported by the content.

It needs a lot of improvement.
See the reviewer's comments

The list of REFERENCES is comprehensive and appropriate.

The list of references are appropriate and well-organized.

Please rate the TITLE of this paper.

[Poor] **1-5** [Excellent]

3

Please rate the ABSTRACT of this paper.

[Poor] **1-5** [Excellent]

3

Please rate the LANGUAGE of this paper.

[Poor] **1-5** [Excellent]

4

Please rate the METHODS of this paper.

[Poor] **1-5** [Excellent]

3

Please rate the BODY of this paper.

[Poor] **1-5** [Excellent]

4

Please rate the CONCLUSION of this paper.

[Poor] **1-5** [Excellent]

2

Please rate the REFERENCES of this paper.

[Poor] **1-5** [Excellent]

5

Overall Recommendation!!!

Return for major revision and resubmission

Comments and Suggestions to the Author(s):

This study entitled “Hygiene prevention in clay-based ceramic tiles by using the phosphate extracted from the mines of Morocco and its effect on technical properties” reported the impact of P₂O₅ on the mechanical properties and anti-biofilm of Clay-based ceramic tiles. I found that the manuscript is interesting, and the work presented here justifies the title and objective of this research. It is therefore valuable to be published in the European Scientific Journal (ESJ). However, many things need to be modified before the manuscript can be revised to be accepted in ESJ.

- First, I would strongly suggest the authors, elaboratively explain the novelty of this research. The concept of improving the hygiene is good but there are many other minerals (Hematite, Serpentine, bauxite, or Garnet etc) which not only improve the hygiene but also improve the mechanical and geotechnical properties of the clay-based ceramic tiles.
- The authors must explain, what were the factors that basically came into motion to improve the strength and hygiene of the tiles.
- The authors have done a very good job in identifying the percentage at which the HG and MG phosphate is suitable for ceramic tile making but can they explain that once these tiles are used in homes and offices and different cleaning chemicals are used on them, won't remove the anti-biofilm of natural phosphate layer.
- The Methodology is sufficiently described and adequate to achieve the purpose of this work. I strongly suggest the author to explain why only phosphate is good for the hygienic properties of ceramic tiles and why other minerals are not. If the sand-silt and clay ratio is changes, will it affect the geotechnical properties of the tiles? Did the phosphate addition increase or decrease the baking temperature of ceramic tiles and so on?
- In the result and discussion section, the explanations and reasoning are a little bit poor. All the results are explained in percentage differences with very little logical outcome. For this kind of research, the authors should explain by mixing different grades of phosphate either improves the geotechnical properties and if they are put to

the harsh testing environment of our local use of tiles in homes and offices what will be its impact.

- I have suggested a new title for the manuscript, if the authors like it they can use it or try to rephrase the title in the given sense.

I accept this manuscript with major revision.

That is all from my side, I would recommend this paper, to be published in ESJ with all the above-mentioned revisions.

Reviewer d:

Recommendation: Revisions Required

The TITLE is clear and it is adequate to the content of the article.

Appropriate.

I think the name of the country should start with the capital word "Morocco" in the title.

The ABSTRACT clearly presents objects, methods, and results.

OK

It should be in the present tense.

Characterizing techniques must be mentioned here.

Typos/ spelling mistakes should be rectified.

There are a few grammatical errors and spelling mistakes in this article.

There are several spelling mistakes in the manuscript and the issue should be addressed before the final publication.

The study METHODS are explained clearly.

Adequate.

Synthetic methodology needs clarity for the young researchers.

The body of the paper is clear and does not contain errors.

There are some typos and grammatical errors that must be addressed by an English expert.

The CONCLUSION or summary is accurate and supported by the content.

Its OK but still needs some refinement as mentioned in the Reviewer'report. See the attachment.

The list of REFERENCES is comprehensive and appropriate.

Homogenize all the references following the journal's requirements.
Please recheck all the references once again for uniformity.

Please rate the TITLE of this paper.

[Poor] **1-5** [Excellent]

4

Please rate the ABSTRACT of this paper.

[Poor] **1-5** [Excellent]

3

Please rate the LANGUAGE of this paper.

[Poor] **1-5** [Excellent]

3

Please rate the METHODS of this paper.

[Poor] **1-5** [Excellent]

3

Please rate the BODY of this paper.

[Poor] **1-5** [Excellent]

4

Please rate the CONCLUSION of this paper.

[Poor] **1-5** [Excellent]

3

Please rate the REFERENCES of this paper.

[Poor] 1-5 [Excellent]

4

Overall Recommendation!!!

Accepted, minor revision needed

Comments and Suggestions to the Author(s):

Please see the Attached Reviewer's report.
