ISSN: 2320-5407
International Journal of Advanced Research
Publisher's Name: Jana Publication and Research LLP
www.journalijar.com

REVIEWER'S REPORT

Manuscript No: IJAR-54564 **Date: 31-10-2025**

Title: PHYSICAL AND THERMOMECHANICAL CHARACTERISATION OF MONT-ROLLAND LATERITE AND WOOD CHIPS MIXTURES STABILISED WITH PORTLAND CEMENT.

Recommendation:
Accept as it is .....
Accept after minor revision.....
Accept after major revision .....
Do not accept (*Reasons below*) .....

Rating	Excel.	Good	Fair	Poor
Originality	✓			
Techn. Quality		✓		
Clarity	✓			
Significance	✓			

Reviewer Name: Mr Bilal Mir

Reviewer's Comment for Publication.

This manuscript presents a detailed experimental study on the **physical, mechanical, and thermal properties** of composites made from Mont-Rolland laterite, wood chips, and Portland cement. The research aims to identify sustainable and affordable construction materials suited to **Senegal's climatic and socioeconomic context**, addressing both environmental and housing challenges.

Strengths

- The paper addresses a **highly relevant and practical problem**—developing low-cost, energy-efficient building materials using local resources.
- The **methodological design** is sound and adheres to recognized standards (NF French norms), ensuring the credibility of results.
- The **comprehensive testing program**—including granulometry, Atterberg limits, water absorption, compressive strength, and thermal conductivity—provides a complete understanding of material performance.

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- The findings are **well-supported by experimental data**, showing clear trends (e.g., optimal mechanical performance at 2% cement and improved thermal resistance).
- The discussion is coherent, connecting laboratory results to real-world construction applications, particularly for **non-load-bearing wall systems**.
- The study aligns with **sustainability goals**, promoting the use of renewable and locally available materials.

Weaknesses / Suggestions for Minor Revision

1. **Figures and Tables:** Several figures lack axis labels, units, or captions in English (e.g., Figures 1–5). Ensure all visuals are clear and consistently formatted.
2. **Reference Formatting:** Standardize citation style (some use [number], others include extra spaces or punctuation errors).
3. **Language and Grammar:** Minor grammatical errors and French-English inconsistencies should be edited for clarity and smooth reading.
4. **Methodological Clarifications:** Specify the **curing conditions** (time and temperature) for composite samples before testing to improve reproducibility.
5. **Discussion Depth:** Expand slightly on the **microstructural explanation** for the observed decrease in strength beyond 2% cement—perhaps due to pore formation or uneven distribution.
6. **Abstract Precision:** Include numerical results directly in the abstract for better scientific clarity (e.g., specific thermal resistance or compressive strength values).

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Overall Evaluation

The paper demonstrates strong scientific merit and offers a valuable contribution to sustainable construction material research in tropical regions. It successfully integrates experimental rigor with environmental relevance. With minor editorial improvements, the manuscript is well-suited for publication.