

# Review of: "Investigation of Mechanical Properties of Sisal Fiber and Sugar Palm Fiber Reinforced Hybrid Composites"

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**Potential competing interests:** No potential competing interests to declare.

## Comments

The paper presents the comparative assessment of sisal and sugar palm fiber for reinforced hybrid composites. The authors performed detailed experimental tests on the raw materials. The authors found that sisal (20%) and sugar palm fiber (10%) absorb less water compared to other composites. The subject of this study is interesting, but not new. Therefore, this manuscript requires major revisions before publication. The main comments are as follows:

1. Section 1 Introduction. Can you add recent works from the literature?
2. Section 2.1 Sisal fiber. Please add or specify the fiber length.
3. It is advisable to add the results of porosity.
4. Section 2.3. Hybrid Composite Preparation. Why were sisal and sugar palm fibers treated with a NaOH solution of 20% concentration?
5. Could you explain the choice of 10, 15, and 20% substitution or justify the choice of three hybrid composite sheets with different matrix-fiber proportions for the formulations?
6. Section 4. Results and Discussions. a) Figure 8: The x-axis in Figure 8 denotes "displacement" ? b) Keep the same color code for figures (e.g., red for sample 3).
7. Include the standard deviation of three individual results to indicate result variability in figures 9 and 10.
8. For the stress-strain curve presented in Figure 8, clarification is sought regarding the number of specimens tested
9. Justification is required for the observed stress-strain behavior, particularly regarding the material's transition to ductile properties.
10. Is there any relation between onset porosity and flexural stress?
11. Section 4.4. Water Absorption Test. The specimens were immersed for 4 days, so why not more?
12. You have reported that "The low percentage of water absorption is observed in sample-2 and is maintained for the first three days equal to 5.5%, and on the fourth day, it increased to 11.1%. The reason for absorbing a low percentage of water is due to the less amount of sugar palm fibers and their stability during the heating process." Is this the only reason and/or the only factor? What was the heating rate during treatment?