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

Dipankar Das[1]

1 Tripura University

Potential competing interests: No potential competing interests to declare.

The article describes the investigation of the mechanical properties of sisal fiber and sugar palm fiber reinforced hybrid composites, and there are certain aspects in which I would suggest the authors include major modifications.

1. In the line “The obtained results show that the composite made of sisal fiber 20% and sugar palm fiber 10%.....” put wt.% or vol.% in the entire manuscript for better understanding of the readers.
2. Remove underline from the line ….” Dananjay et al., [6] studied Kevlar-29, basaltfibre, and carbon fibre, which……”
3. Add a few more current literatures on the Sisal Fiber and Sugar Palm Fiber Reinforced Hybrid Composites.
4. Write about the research gap and the objective of the present study.
5. Do not need the first paragraph of the Materials and Methods part. It is about the literature review. If you want to keep it, then shift this part to the introduction. Write about your materials and methods only.
6. Keep the treated and untreated images of coir side by side for better understanding of readers.
7. Include the physical properties and chemical compositions of the raw fibers.
8. What is the tensile strength of the fibers?
9. How are the length and diameter of the fibers maintained?
10. Which compression moulding machine is used? Add the model name.
11. What was the size of the fibers during the preparation of samples?
12. How many samples are prepared for one batch of samples?
13. Provide images of the prepared specimens with a scale for better understanding of the readers.
14. Why 4 days is chosen for the water absorption test?
15. It is written that the specimens were submerged for 4 days, but in Table 2, 5 days are shown. It is not clear……need explanations
16. Water absorption is also related to surface porosity as well as structural pores. Read the article bearing the DOI: https://doi.org/10.1007/s12633-022-02116-5 and add it to your water absorption results and discussion part.
17. Authors are advised to include the FESEM images of the raw materials and the optimized specimens. Fractographic images can be more effective for better understanding and to co-relate the optimized mechanical properties.
18. The results and discussion part needs to improve with current literature. Required deep analysis.
19. I will encourage the authors to test the durability of the synthesized materials in a harsh environment in order to properly project the operability parameters of these high-strength matrices.
20. After possible corrections, the results should be included in the conclusion part.

21. The manuscript must be carefully read by a native English speaker to improve the English standard.
22. Typographical errors are there in the sentences that need to be eliminated.