

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

Paik San H'ng¹

¹ Universiti Putra Malaysia

Potential competing interests: No potential competing interests to declare.

1. Due to the cost-effective machining of metal alloys, natural fiber-reinforced composites are in high demand. Please explain this statement.
2. The composite was made with fibre orientations of 0, 45 & 90 of ?? angle?
3. Investigated the effect of CG and KG fibre hybridization on seawater diffusivity. What do CG and KG stand for?
4. Common failure modes for the bast fiber-reinforced composite include fiber pull-out, fiber fracture, and matrix cracking, while delamination was reported as the major failure mode for the hybrid composite. Common failure modes for the bast fiber-reinforced composite include fiber pull-out, fiber fracture, and matrix cracking, while delamination was reported as the major failure mode for the hybrid composite. Common failure modes for the bast fiber-reinforced composite include fiber pull-out, fiber fracture, and matrix cracking, while delamination was reported as the major failure mode for the hybrid composite. Repeated 3 times.
5. MWCNT stands for ?
6. Selvan et al., [9] Three samples (kenaf - kenaf), (sisal - sisal), and (kenaf - sisal) combinations were fabricated by the compression moulding process. Grammatical error here.
7. What is the objective of your study?
8. Chapter 2 Materials and Methods; Remove this paragraph "Over the past few years, the focus of researchers has been on eco-friendly, biodegradable, and low-density composites obtained from plant fibres. The fibres obtained from plants are abundant, and only a small quantity of fibre is used in fertilizer, cattle-feed, household applications, etc., with the bulk of the fibres being burnt in the field, which also affects the environment. Instead of wasting these natural fibres, they can be used with polymers to form composite materials, and based on their mechanical, thermal, and physical properties, they could be used in different applications. The implementation of these eco-friendly materials in various applications will not only benefit the environment but also could generate revenue and job opportunities. Sugar palm, flax, hemp, jute, sisal, kenaf, banana, are some of the examples of natural fibres obtained from plants. " You don't put a literature review in your research methodology. Similar to 2.1 and 2.2, remove the explanation of sisal and sugar palm fibres.
9. 2.3. Hybrid Composite Preparation (this section is about preparation of hybrid composites)
Sisal fibre, which is extracted from the leaves of the sisal plant, was taken. Figure 3 shows the untreated sisal fibre. Untreated fibre has poor surface properties and possesses less strength. (Do you carry out any tests on this fiber's surface properties??)

10. Remove this paragraph “In order to overcome the high degree of moisture absorption and poor dimensional stability of the natural fibers, they are subjected to chemical treatment. The chemical treatment of the fiber is aimed at improving the adhesion between the fiber surface and the polymer matrix. It will not only modify the fiber surface but also increase fiber strength. The water absorption of composites is reduced, and their mechanical properties will be improved.”
11. Chapter 3, grammatical error in this paragraph “To conduct the mechanical tests like the tensile, Izod, and flexural tests, the specimen has to be cut according to ASTM standards as mentioned in Figure 7. So the composite specimens were marked with dimensions according to ASTM standards, and then they were shaped using the cutting machine shown in Figure 7. The edges were polished using salt paper.”
12. The Chapter 3 Mechanical Properties are supposed to be placed under Chapter 2, sub-chapter evaluation.
13. Which tensile machine did you use? Electronic Tonometer – Model PC 2000 or The tensile test is performed on the universal testing machine (UTM) Kalpak KIC-2-1000-C?
14. Generally, the research in this paper is not sufficient to provide any significant value or data to support the conclusions that are being made.
15. I recommend the researcher to add additional variables in this research to have better or significant data.