A review on kenaf fiber hybrid composites: Mechanical properties, potentials, and challenges in engineering applications

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Abstract

The developments of agricultural-based composites for structural applications such as in construction, aerospace, and automotive have gained tremendous interest from researchers due to the uniqueness of its behaviors. Among available agricultural fibers, kenaf fiber widely adopted as a reinforcement in polymer composites to form kenaf reinforced polymer matrix composites. The hybridization technique was introduced to enhance the mechanical performances of composite materials wherein two different types of reinforcements were employed to form a hybrid composite. Therefore, in this review paper, the investigations focus on the mechanical properties of kenaf hybrid composites as well as potentials and barriers of agricultural-based composites were discussed to provide a literature source for future research regarding this topic.

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