

## MECHANICAL BEHAVIOR OF STACKING SEQUENCE IN KENAF AND BANANAFIBER REINFORCED -POLYESTER LAMINATE

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### ABSTRACT:

Recently the use of natural fiber reinforced Polyester composite in the various sectors has increased tremendously. The interest in fiber-reinforced polyester composites (FRPC) is growing rapidly due to its high performance in terms of mechanical properties, significant processing advantages, excellent chemical resistance, low cost, and low density. The development of composite materials based on the reinforcement of two or more fiber types in a matrix leads to the production of laminate composites.

In the present investigation, the effect of hybridization on mechanical properties on kenaf and banana reinforced polyester composite (KBRP) were evaluated experimentally. The main aim of this paper is to review the work carried out by using kenaf and banana fiber composite. This is due to the environmental problems and health hazard possessed by the synthetic fiber during disposal and manufacturing. The reinforcement made by using the kenaf and banana fiber shows its potential to replace the glass fiber composite. Composites were fabricated using Hand lay-up technique. The results demonstrate that hybridization play an important role for improving the mechanical properties of composites. The tensile and flexural properties of hybrid composites are markedly improved as compare to un hybrid composites.. Water absorption behavior indicated that hybrid composites offer better resistance to water absorption. In addition to the mechanical properties, processing methods and application of kenaf and banana fiber composite is also discussed.

This work demonstrates the potential of the hybrid natural fiber composite materials for use in a number of consumable goods.

**KEY WORDS:** Kenaf Fiber, Banana Fiber, KBRPC, polyester

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