

Experimental Investigation of Snake Grass Fiber with Reinforced Poly Ester Composites

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Abstract: *Recent years have seen a substantial increase in interest in snake grass fiber reinforced epoxy composites because of its high strength, low weight, and biodegradability. This project's goal was to use a nanoparticle technology to manufacture a natural fiber reinforced composite product. By using compression moulding, a Snake grass fiber reinforced epoxy polymer composite plate was created. By adding different fillers, such as seashell, nanoclay, and silica, to Snake grass fiber reinforced epoxy composites in this study, we hoped to improve their mechanical characteristics. The mechanical characteristics of the resultant composites were assessed after the filler materials were incorporated into the epoxy matrix at various weight fractions. The findings indicated that the mechanical properties of the composites, including tensile strength, wear strength, water absorption property, and impact strength, were greatly improved by the inclusion of fillers. The best concentration of the three distinct nanoparticles is then examined.*

Keywords: Snake grass, epoxy, filler materials

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