

## MECHANICAL PROPERTIES OF JUTE AND HEMP REINFORCED EPOXY/POLYESTER HYBRID COMPOSITES

GIRISHA K G, ANIL K C & AKASH

Research Scholar, Department of Mechanical Engineering, Siddaganga Institute of Technology, Tumkur,  
Karnataka, India

### ABSTRACT

The mechanical properties of epoxy and polyester matrix composites reinforced with Jute/Hemp fibres were evaluated. In this research the mechanical properties like impact strength, tensile strength and flexural strength were studied. These fibres were placed with matrix resin in different orientation (30%, 45%, and 90%) by using simple hand lay-up technique. The evaluation of the results show that the mechanical properties are higher in the 90<sup>0</sup> oriented hybrid composite than in 45<sup>0</sup> and 30<sup>0</sup> orientation. There are indications that by the incorporation of both fibres the polyester resin will stabilize mechanical properties than epoxy resin.

**KEYWORDS:** Epoxy, Hand Lay-up, Hybrid Fibres, Polyester