

# **Mechanical Properties of Hemp-Fibre-Reinforced Euphorbia Composites**

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## **Abstract**

A composite material consisting of hydroxide-modified hemp fibres and euphorbia resin was produced. The composites were tested in tension, short-beam interlaminar shear stress and in impact. There was an increase in the tensile strength and modulus for resins with high-hydroxyl-group based composites. Similar results were obtained for interlaminar shear stress while low-hydroxyl group euphorbia resin based composites exhibited high impact strength. The euphorbia resin with high hydroxyl content yielded composites with high stiffness. The use of euphorbia-based resins in composite manufacture increases the value of the euphorbia oil as well as creating a new route of composite manufacturing.

## **Keywords**

Composites;

Fibers;

Interfaces;

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Resins