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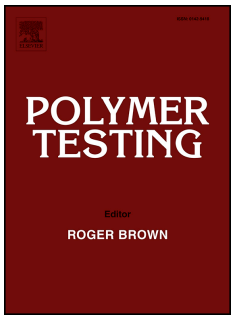


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# Effect of Benzoyl Treatment on Flexural and Compressive Properties of Sugar Palm/Glass Fibres/Epoxy Hybrid Composites

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## Abstract

Present study deals the benzoylation of sugar palm fibres (SPF) and its hybridization in glass fibres (GF) reinforced epoxy composites through a traditional hand lay-up technique. The effect of benzoylation on flexural and compressive properties at various fibres-fibres (SPF/GF) ratios, that is, 100:0, 70:30, 50:50, 30:70 and 0:100 of SPF/GF/epoxy hybrid composites were evaluated and compared. The flexural and compressive properties of the composites were investigated according to ASTM D-790-10 (2010) and ASTM D695-15 (2015) standards. Result analysis revealed that benzoylation of the SPF considerably improved the flexural and compressive properties of the SPF/GF/epoxy hybrid composites. However the best flexural and compressive properties were observed for treated SPF/GF/epoxy hybrid composites with formulation of 30SPF:70GF also been justified by the SEM.