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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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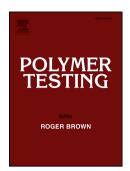
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ACCEPTED MANUSCRIPT

1	Effect of Benzoyl Treatment on Flexural and Compressive Properties of Sugar
2	Palm/Glass Fibres/Epoxy Hybrid Composites
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11	Abstract
12	Present study deals the benzoylation of sugar palm fibres (SPF) and its hybridization in glass
13	fibres (GF) reinforced epoxy composites through a traditional hand lay-up technique. The
14	effect of benzoylation on flexural and compressive properties at various fibres-fibres
15	(SPF/GF) ratios, that is, 100:0, 70:30, 50:50, 30:70 and 0:100 of SPF/GF/epoxy hybrid
16	composites were evaluated and compared. The flexural and compressive properties of the
17	composites were investigated according to ASTM D-790-10 (2010) and ASTM D695-15
18	(2015) standards. Result analysis revealed that benzoylation of the SPF considerably
19	improved the flexural and compressive properties of the SPF/GF/epoxy hybrid composites.
20	However the best flexural and compressive properties were observed for treated
21	SPF/GF/epoxy hybrid composites with formulation of 30SPF:70GF also been justified by the
22	SEM.

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