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Mechanical Characterization of Roselle and Sisal Fibre Reinforced Polymer Composites

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Roselle fibre, Sisal fibre, Polymer, Alkali treatment, Mechanical testing

T. Vinod Kumar

Dept. of Mech. Engg., Vels Institute of Sci., Tech. and Advanced Studies, Chennai

M. Chandrasekaran

Dept. of Mech. Engg., Vels Institute of Sci., Tech. and Advanced Studies, Chennai

P. Vivek

Dept. of Mech. Engg., Vels Institute of Sci., Tech. and Advanced Studies, Chennai

S. Arunkumar

Dept. of Mech. Engg., Vels Institute of Sci., Tech. and Advanced Studies, Chennai

S. Padmanabhan

Dept. of Auto. Engg., Vel Tech Rangarajan Dr. Sagunthala R and D Institute of Sci. and Tech., Chennai

Abstract

This paper details the mechanical characterization of natural fibre reinforced polymer composites. This includes the laboratory works such as tensile, flexural and impact tests. The samples of randomly oriented Roselle and Sisal fibre reinforced polyester composites were prepared for the laboratory tests. Theoretical modelling of the composites and calculation of the properties are also presented. The effect of alkali treatment of the fibre on the

characteristics of the composite is also included. The results obtained are compared on various aspects to obtain a better performing composite.

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