

Kenaf bast-unsaturated polyester composite: The effect of different alkaline treatment condition on tensile properties

Abstract

The biocomposites were prepared by using kenaf bast fiber mat as reinforcing materials at different percentage. The kenaf bast fiber was treated with alkaline at different sodium hydroxide (NaOH) percentage. Composites which were made from treated alkaline kenaf treated bast fiber showed better mechanical properties (tensile) than those of the unmodified. Scanning electron microscope analysis showed the evidence of the enhancement of the compatibility between kenaf bast fiber and the matrix. The percentage of kenaf fiber in composites also plays a crucial role in determining the composite properties.

Keywords; Composite, Kenaf Bast, Lignocellulosic, Unsaturated Polyester