

Alkali treatment of screw pine (*pandanus odoratissimus*) fibres and its effect on unsaturated polyester composite.

Abstract

Characteristics of Screw Pine fiber of species *Pandanus Odoratissimus* (PO fibers) and short PO fibers reinforced composite were studied. The results show that various alkali concentrations changed ability of PO fibers in absorptions of moisture, chemical compositions and cross-sectional area. The untreated and treated PO fibers were compounded with unsaturated polyester to evaluate their mechanical properties. The treated PO fiber composites exhibit high mechanical properties in comparison with untreated ones. SEM photographs revealed a different fracture surface between untreated PO fiber-reinforced composites and treated ones.

Keyword: Alkali treatment; Mechanical properties; Screw Pine fibers