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Effect of fiber surface treatments on coir fiber polyester composites

The influence of coir fiber surface treatments on tensile strength of coir fiber polyester composites has been investigated. Reduction in tensile strength and surface appearance of coir fibers treated in different ways were considered in order to select a suitable chemical treatment. Scanning Electron Microscopy (SEM) was used to observe the treated and untreated fiber surfaces. SEM observations show the removal of outermost waxy layers from the fiber surface resulting in a rough surface as a result of the Teepol treatment. Further, the coir polyester composite prepared using 05% Teepol treated short fibers shows a significant improvement in tensile strength.