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Effect of Alkali Treatment on the Morphology and Tensile Properties of Cordia Dichotoma Fabric/Polycarbonate Composites

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ABSTRACT

The newly identified natural fabric from the tree of *Cordia dichotoma* was coated with polycarbonate. Tensile parameters, such as, tensile strength, Young's modulus, and percentage of elongation at the break of the fabrics were determined using a universal testing machine. The effects of alkali treatment and the polycarbonate coating on the tensile properties of the fabric were studied. The morphology of the fabric before and after alkali treatment and polycarbonate coating was studied using the scanning electron and polarized optical microscopic techniques. Improvement in tensile properties, following polycarbonate coating, was attributed to the filling up of the void regions of the uniaxial fabrics with the polycarbonate, thereby facilitating continuity.