The tensile properties of single sugar palm (Arenga pinnata) fibre

ABSTRACT

This paper presents a brief description and characterization of the sugar palm fibres, still rare in the scientific community, compared to other natural fibres employed in polymeric composites. Sugar palm fibres are cellulose-based fibres extracted from the Arenga pinnata plant. The characterization consists of tensile test and the morphological examination. The average tensile properties results of fibres such as Young's modulus is equal to 3.69 GPa, tensile strength is equal to 190.29 MPa, and strain at failure is equal to 19.6%.