

## **Elastic and viscoelastic properties of sugarcane bagasse-filled poly(vinyl chloride) composites**

### **ABSTRACT**

Elastic and viscoelastic properties of sugarcane bagasse-filled poly(vinyl chloride) were determined by means of three-point bending flexural tests and dynamic mechanical and thermal analysis. The elastic modulus, storage modulus, loss modulus, and damping parameter of the composites at fibre contents of 10, 20, 30, and 40% in mass were determined, as well as those of the unfilled matrix. There was a correlation between the elastic modulus and storage modulus of the composites. Moreover, the elastic and viscoelastic properties of the composites were highly influenced by fibre content.

**Keyword:** Bagasse; Composite; Elasticity; Viscoelasticity; Thermomechanical