

## **Tensile properties of polypropylene/cocoa pod husk biocomposites: Effect of maleated polypropylene**

### **Abstract**

Polypropylene/Cocoa Pod Husk (PP/CPH) biocomposites with different maleated polypropylene (MAPP) content were prepared via melt blending process using Brabender Plastrograph mixer. The tensile strength and tensile modulus of PP/CPH biocomposites increased with increasing of MAPP content. The PP/CPH biocomposites with 5 phr of MAPP showed the optimum improvement on tensile properties. However, the increased of MAPP content reduced the elongation at break of PP/CPH biocomposites. At 5 phr of MAPP content, PP/CPH biocomposites showed lowest elongation at break. Scanning electron microscope confirms the PP/CPH biocomposites with MAPP have better filler-matrix interaction and adhesion due to the effect of MAPP

### **Keywords**

Biocomposites; Cocoa pod husk; Meleated polypropylene; Polypropylene