

# Vetiver–polypropylene composites: Physical and mechanical properties

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Received 10 May 2005; received in revised form 25 January 2006; accepted 14 February 2006

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## Abstract

Injection molded vetiver–polypropylene (PP) composites at various ratios of vetiver content and vetiver length were prepared. When compared to PP, vetiver–PP composites exhibited higher tensile strength and Young's modulus but lower elongation at break and impact strength. An increase in vetiver content led to an increase in viscosity, heat distortion temperature, crystallization temperature, and Young's modulus of the composites. On the other hand, the decomposition temperature, tensile strength, elongation at break, and impact strength decreased with increasing vetiver content. The chemical treatment of the vetiver grass improved the mechanical properties of the composites.

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*Keywords:* A. Fibres; A. Polymer–matrix composites (PMCs); B. Physical properties; B. Mechanical properties

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