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A Review of the Recent Developments in Biocomposites Based on Natural Fibres and Their Application Perspectives

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Abstract

The growing ecological and environmental consciousness has driven efforts for development of new innovative materials for various end-use applications. Polymers synthesized from natural resources, have gained considerable research interest in the recent years. This review paper is intended to provide a brief outline of work that covers in the area of biocomposites, major class of biodegradable polymers, natural fibres, as well as their manufacturing techniques and properties has been highlighted. Various surface modification methods were incorporated to improve the fibre-matrix adhesion resulting in the enhancement of mechanical properties of the biocomposites. Moreover, an economical impact and future direction of these materials has been critically reviewed. This review concludes that the biocomposites form one of the emerging areas in polymer science that gain attention for use in various applications ranging from automobile to the building industries.

Keywords: A. Polymer-matrix composites (PMCs); A. Fibres; B. Environmental degradation; B. Mechanical properties.

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