

A REVIEW ON INTERFACE MODIFICATION AND CHARACTERIZATION OF NATURAL FIBER REINFORCED PLASTIC COMPOSITES

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An important aspect with respect to optimal mechanical performance of fiber reinforced composites in general and durability in particular is the optimization of the interfacial bond between fiber and polymer matrix. The quality of the fiber-matrix interface is significant for the application of natural fibers as reinforcement for plastics. Since the fibers and matrices are chemically different, strong adhesion at their interfaces is needed for an effective transfer of stress and bond distribution throughout an interface. A good compatibilization between cellulose fibers and non-polar matrices is achieved from polymeric chains that will favour entanglements and inter diffusion with the matrix. This article gives a critical review on the physical and chemical treatment methods that improve the fiber-matrix adhesion and their characterization methods.

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