

Preparing Advanced Polymer Additives using Fluid Energy Mill

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High rigidity and improved impact resistance are the main demands for polymer composite materials used for the construction purposes. Introduction of micro-sized or nano-sized calcium carbonate as a filler can simultaneously increase the elastic modulus and impact toughness of polymer materials.

The objectives of the current work are conducting simultaneously milling and coating of large calcium carbonate particulates pre-coated with nanosized particles in Fluid Energy Mill (FEM), and investigating the performance of coated calcium carbonate particles as filler in polymer matrix (Polypropylene).