

Novel Coupling Agents for Natural Fiber Composites

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There has been extensive academic and industrial research geared at determining the utility of coupling agents in natural fiber composites. Although many chemistries have been examined, the most widely utilized coupling agents today are maleated polyolefins. When added to a natural fiber composite formulation, these functional polymers typically provide minor improvements in MOE and more significant improvements in MOR and moisture resistance. However, there is a strong desire to further improve performance in natural fiber composite systems. This talk will focus on research we are undertaking to synthesize novel maleate based grafting agents. These systems have been designed to have better miscibility in polyolefins during reactive extrusion. The end game of this research is to design more efficient grafting agents that will deliver novel chemistries at higher overall concentrations to the polyolefin backbone.