

## **Wood Pulp Fiber Reinforced Thermoplastic Composites**

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Reinforcing thermoplastics with bleached chemical wood pulp fibers offer sustainable, lower carbon foot print solution to designers and engineers to extend the boundaries for new and existing products. These fibers offer consistent quality, low to no odor during processing, good natural color with very good colorability, lower specific gravity (compared to some fillers and fibers) and other benefits. Thermoplastic composites incorporating these fibers have been found to process at lower temperatures and have shorter molding cycle times resulting in potentially significant economic benefits to injection molders. Designers can leverage the warm feel (haptics) of these composites along with the ability to achieve different degrees of fiber dispersion in creating attractive molded parts. Engineers have noticed unique rigidity and balanced strength and stiffness properties of these composites. This presentation will explore fiber morphology and the science behind thermoplastic composites utilizing wood pulp fiber, examples demonstrating the molding benefits of the material in diverse applications and its potential for use with a variety of polymers in the future.