

## **Advancing the Use of Molded Natural Fiber Composites in Auto Applications**

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### **Abstract:**

The automotive industry is under significant pressure to curb its greenhouse gas emissions as transportation transitions to electric power, materials, and manufacturing will account for most carbon emissions. Our team, working collectively, is at the forefront of advancing the incorporation of natural fibers in automotive materials. We use a thermoforming process that meets industry requirements to make complex design characteristics and incorporates natural fibers as the main components. Compared to the current state of the art, these materials meet or exceed current performance characteristics. Our process provides a path forward for the auto industry to decrease the environmental burden and improve material performance using natural fibers. We demonstrate component recycling through multiple cycles without loss in performance, part cost reduction, and unique aesthetics not currently possible. These aspects, along with the successes, challenges, and outlook for these materials, will be discussed.