



# Safety

## Seat Cushion Frame and Storage Door

### *OEM/Vehicle*

**Ford Motor Co.  
2016 Ford Super Duty**

### *System Supplier*

**Royal Technologies Corp.**

### *Material Processor*

**Royal Technologies Corp.**

### *Material Supplier*

**Celanese Corp.**

### *Resin*

**Celstran GF40-20 LFT-PP**

### *Tooling/Equipment Supplier*

**Vortec Tooling Solutions, Inc.**



For the first time, a polymer composite has replaced magnesium in a structural seat-cushion frame and under-seat storage lid for a front center 20% seat with integrated restraint system. The application is weight neutral and lower cost (~\$4 USD/unit), and satisfies all safety and crashworthiness requirements. Its flexible architecture allows for updates with future enhancements. Injection molded 40% LFT-PP is used to mold the frame, which also features an EPP antishmarine foam block and a lockable ergo-latch. The assembly represents a significant reduction in carbon footprint vs. magnesium and has yielded 2 awarded and 2 pending patents.