



# **PART# 3 (003)**

## **Ford Super Duty Seat Cushion Frame & Storage Door**

**COMPETITION WINNER OF:** Automotive Division Innovation Awards Gala – Safety Category Winner

**SUBMITTED BY:** Ford Motor Co.

**PROCESSOR:** Royal Technologies

**DESIGNER:** Ford Motor Co.

**MOLDMAKER:** Royal Technologies

### **OVERVIEW:**

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 an integrated restraint system. The application is weight neutral and lower cost ( $\approx$ \$4 USD/unit), and satisfies all safety and crashworthiness requirements. Its flexible architecture allows for updates with future enhancements. Injection molded 40% LFT-PP (Celanese Celstran® PP-GF40-20) is used to mold the frame, which also features an EPP ant submarine foam block and a lockable ergo-latch. The assembly represents a significant reduction in carbon footprint versus magnesium and has yielded 2 awarded and 2 pending patents.