

COMPOSITE BODY SOLUTIONS<sup>™</sup> (CBS<sup>™</sup>)

# The Proven High-Performance Structural Reinforcement Technology.

Since 1998, L&L Products' Composite Body Solutions (CBS™) structural reinforcement technology improves vehicle body structure performance. Our technology enables weight reduction, while maintaining or improving vehicle durability, stiffness, and crashworthiness.

cbs.llproducts.com

# L&L Products

# COMPOSITE BODY SOLUTIONS<sup>™</sup> (CBS<sup>™</sup>)

# Performance, Mass, Process, and Cost Optimization.

Our CBS<sup>™</sup> technologies combine highly engineered heat-activated structural adhesive material with a customized thermoplastic carrier for lightweight but strong structural applications. L&L CBS<sup>™</sup> reinforcements can eliminate localized durability problems, such as metal fatigue, by increasing overall stiffness and distributing loads more effectively across the structure. During a crash event, L&L CBS<sup>™</sup> technology provides both section integrity and load path management.

The L&L Products team uses its proven expertise with advanced CAD/ CAE simulation to design a three-dimensional engineered part. The result is a structural insert that is dry to the touch and ready to assemble into the body structure prior to cavity closure and E-coating.



CBS.

Uncured state (before activation and foaming)



Cured state (after activation and foaming)

# **KEY PRODUCT ATTRIBUTES**



## STRONGER

- Load path management
- Section integrity
- High strength/stiffnessto-weight ratio
- Increased durability

### QUIETER

Improved NVH performance when our structural reinforcement technology is integrated into the body structure





### PROCESS IMPROVEMENT

- Reduced implementation timing
- No impact to the body shop



## DESIGN FLEXIBILITY

- Increased stability of joints and sections within the body structure
- Lightweighting potential, enabling thickness reduction and part replacement
- Stiffness and NVH
- Durability
- Front Crash
- Side Impact
- 🗕 Rear Crash
- Roof Crush
- Roof Load Security
- O Small Overlap Front

Scan for disclaimer

C1-PUBLIC

#### cbs.llproducts.com