



CONTINUOUS COMPOSITE SYSTEMS™ (CCS™)

## Enhanced Strength and Rigidity.

With our CCS™ products and process, L&L Products can deliver a cost-effective, ultra-high strength reinforcement solution that brings extensive engineering knowledge, advanced CAE modeling, and the ability for adhesive use in a variety of applications.

[ccs.llproducts.com](https://ccs.llproducts.com)

# CONTINUOUS COMPOSITE SYSTEM™ (CCS™)

## ENHANCED STRENGTH AND RIGIDITY.

CCS™ combines highly engineered sealants and adhesives with a fiber-reinforced composite carrier in a two-dimensional profile designed to provide strength, stiffness, and rigidity to a lightweight structure.

### KEY PRODUCT ATTRIBUTES

- Consistent quality
- Mass: 75 % lighter than steel; 30 % lighter than aluminum
- Low line rates and inexpensive die costs
- Corrosion resistant
- Nonconductive and insulating with a low co-efficient of thermal expansion
- Excellent structural properties
- High predictability in energy management



## Engineering expertise for every application.



**STRENGTH**  
Ultra-high strength-to-weight ratio



**EXPERTISE**  
In-house engineering expertise



**PROCESS**  
Seamless integration of adhesives

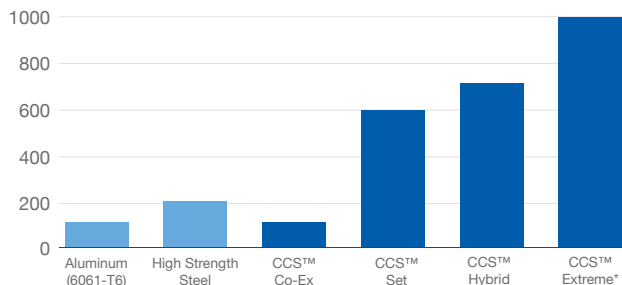


**CAPABILITIES**  
Advanced CAE capabilities



**COMPETITIVE**  
Competitive pricing

### ULTRA-HIGH STRENGTH TO WEIGHT RATIO



*\*In development*

Products	Application type	Markets of interest
<b>CCS™ Co-Ex</b>	Crash, NVH, tube reinforcement	Automotive
<b>CCS™ Set</b>	Crash, stiffness, insulating, part consolidation	Automotive, CV, Industrial, Architectural
<b>CCS™ Hybrid</b>	Crash, stiffness, metal replacement	Automotive, CV
<b>CCS™ Extreme</b>	Crash, stiffness, wind turbine spar caps	Automotive, Aerospace, Energy