

## *Stronger, quieter & safer light trucks*

L&L Products provides light truck manufacturers and tier 1 suppliers around the world with a range of acoustic, anti-corrosion and structural solutions specifically designed to meet the increasingly challenging needs of the industry. A key element of our strategy is to customize our materials and part designs to precisely meet a customer's requirements. Our systems are able to help light truck manufacturers meet the very latest interior and exterior acoustic specifications, vehicle safety requirements, fuel economy and emissions standards.

L&L technologies have been developed to easily integrate into the specific vehicle assembly processes of each manufacturer. L & L systems are available offering cure ranges between room temperature to 204°C (400°F). Systems are also available that are compatible with a wide range of vehicle body materials including steel, aluminum, composites and engineering thermoplastics. L&L is readily able to provide design, material development, engineering and process support to its light truck customers on a global basis.

### *A Complete & Comprehensive Product Range*

#### **L&L Bond**

L&L Bond paste, tape and film structural adhesives can replace traditional joining techniques across a range of substrates - steel, aluminum, composites etc. and are therefore ideal for hybrid body construction. They can reduce weight, eliminate corrosion, enhance joint strength and can be used for dissimilar substrate combinations. In addition they can be readily used in areas that are difficult to access using traditional techniques such as welding and mechanical fasteners.

#### **L&L Seal**

L&L's cavity sealing and acoustic technologies reduce noise entering and exiting a vehicle body by managing noise propagation while at the same time reducing the risk of body corrosion. L&L Seal solutions are available in tape, paste, die cut, clip, metal carrier and injected molded thermoplastic carrier formats to efficiently match customer build rate and geometry requirements.

#### **L&L DECI-TEX**

DECI-TEX fiber-based, acoustic technology is available in sheet and part form. The current DECI-TEX range includes: V series - vertically-lapped, lofted sound absorption materials; T series - thermoformable acoustic sheet materials and M series - molded vertically lapped lofted sound absorption materials. As well as delivering high acoustic / thermal performance while being lighter and lower in cost than the competition, our approach is to offer solutions that are engineered for customer-specific applications.

#### **L&L Reinforce**

L&L's structural reinforcement technologies can strengthen, stiffen and improve crash and acoustic performance in all types of light trucks. L&L Reinforce solutions can enable down gauging or reduced substrate wall thickness without loss of structural integrity in aluminum and steel body structures.



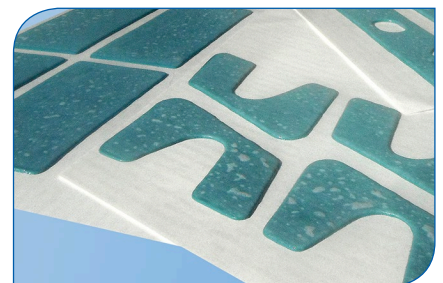
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*L&L Seal heat expanded baffle system.*



*DECI-TEX molded insulation panel.*



*L&L Bond heat cured structural tapes.*

## Light truck solutions



### L&L Bond

- 1 Cab roof skin.
- 2 Door structures.
- 3 Grill structures.
- 4 Bumper modules.
- Cockpit system.

### L&L Seal

- 1 A pillar structure.
- 2 B pillar structure.
- 3 Sill structure.
- 4 Windshield rail.
- 5 Roof sealing.
- Pedal plate and cockpit sealing.

### L&L DECI-TEX

- 1 Headliner acoustic / thermal trim.
- 2 Dash board insulator.
- 3 Door insulator.
- Engine noise/heat shield.
- Driver & passenger floor mat decouplers.

### L&L Reinforce

- 1 A pillar reinforcement.
- 2 Roof roll over reinforcement.
- 3 B pillar reinforcement.
- 4 Bumper beam reinforcement.