

## *Lighter, stronger, quieter & safer trucks*

L&L Products provides 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 truck manufacturers meet the very latest acoustic drive by noise regulations, interior comfort 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 truck 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 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, medium and heavy 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.



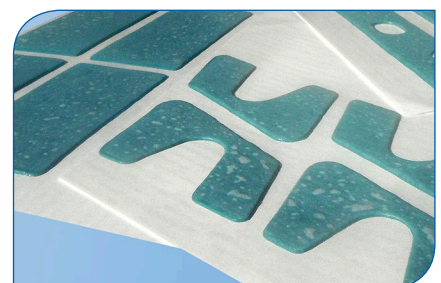
*Lighter, stronger, quieter and safer trucks.*



*L&L Seal heat expanded baffle system.*



*DECI-TEX molded insulation panel.*



*L&L Bond heat cured structural tapes.*

## Commercial truck solutions



### L&L Bond

- 1 High / sleeper cab roof structure.
- 2 Aerodynamic side trim.
- 3 Door and door extension structures.
- 4 Fender structures and reinforcements.
- 5 Grill structures.
- 6 Bumper modules.

### L&L Seal

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

### L&L DECI-TEX

- 1 Headliner acoustic / thermal trim.
- 2 Dash board insulator.
- 3 Hood insulator.
- 4 Door insulator.
- 5 Firewall / noise shield.
- 6 Driver & passenger floor mat decouplers.

### L&L Reinforce

- 1 A pillar reinforcement.
- 2 Roof roll over reinforcement.
- 3 Sill side impact reinforcement.
- 4 B pillar reinforcement.
- 5 Bumper beam reinforcement.