



LORD Assembly-to-Repair Solutions for Heavy Duty Trucks

SELECTOR GUIDE

LORD
AskUsHow™

LORD Assembly-to-Repair Solutions for Heavy Duty Trucks

For over 50 years, LORD Corporation has provided high-value product solutions and application expertise within the Heavy Duty Truck industry. Our Structural Adhesives offer a myriad of benefits including improved strength and durability, enhanced exterior aesthetics and reduced cost compared to mechanical fastening methods. Our material solutions are employed in all aspects of manufacture from design, to the assembly line and into repair and serve as industry benchmarks for quality, value and durability.

ASSEMBLY ADHESIVES	FUSOR REPAIR ADHESIVES	ELASTOMERIC MOUNTS
<ul style="list-style-type: none"> • Improve Aesthetics, Strength and Durability • Lightweighting Solutions • Shorten Assembly Time 	<ul style="list-style-type: none"> • Approved OEM Repair Procedures • Reduce Cycle Time • Identical Adhesive Technologies Used by OEMs 	<ul style="list-style-type: none"> • Improve Operator Comfort • Reduce Noise and Vibration

- 1 Composite Bonding
- 2 Door Bonding
- 3 Cab Bonding
- 4 Body Seam Sealing
- 5 Side Panel Bonding
- 6 Front Panel Bonding
- 7 Roof Panel Bonding

- 8 Metal Bonding/Sealing
- 9 Composite Bonding
- 10 Trailer Wall Repair Patch
- 11 Flexible Plastic Repair
- 12 Composite Repair

- 13 Engine Mounts
- 14 Cab Mounts
- 15 Hood Bushings & Mounts



PRODUCT SELECTION

Assembly & Repair Adhesives For more than half a century, we have developed and lead the way with innovative manufacturing, high-performance adhesives and body seam sealers. Our products employ the latest acrylic, epoxy and urethane technologies to meet our customers' demanding assembly needs while leveraging the same proven technologies to service the collision repair market.

PRODUCT	TYPICAL PROPERTIES*		
	Work Time	Mix Ratio	Time to Handling Strength
LORD 403 Acrylic Adhesive	2-4 min @ 75°F (24°C)	1:1	4-6 min @ 75°F (24°C)
LORD 406 Acrylic Adhesive	6-10 min @ 75°F (24°C)	1:1	12-17 min @ 75°F (24°C)
LORD 410 Acrylic Adhesive	20-30 min @ 75°F (24°C)	1:1	60-120 min @ 75°F (24°C)
Maxlok T3 Acrylic Adhesive	3-5 min @ 77°F (25°C)	4:1	6-8 min @ 77°F (25°C)
Maxlok T6 Acrylic Adhesive	6-9 min @ 77°F (25°C)	4:1	20-24 min @ 77°F (25°C)
Maxlok T18 Acrylic Adhesive	18-24 min @ 77°F (25°C)	4:1	48-72 min @ 77°F (25°C)
LORD 810 Low Read-Through Acrylic Adhesive	8-12 min @ 70°F (21°C)	2:1	20-25 min @ 70°F (21°C)
LORD 7542 Urethane Adhesive	Varies**	1:1	Varies**
LORD 7545 Urethane Adhesive	Varies**	1:1	Varies**
LORD 7555 Urethane Adhesive/Sealant	Varies**	1:1	Varies**
LORD 7610DTM Direct-to-Metal Adhesive/Sealant	25 min @ 77°F (25°C)	One Component	--

*Data is typical and not to be used for specification purposes.

**See technical data sheet for multiple work times and handling strengths.

PRODUCT	TYPICAL PROPERTIES*		
	Work Time	Clamp Time	Paint Time
Fusor 108B Metal Bonding Adhesive	40-50 min @ 70°F (21°C)	Immediately when mechanically fastened / 1.5-2 hr @ 70°F (21°C)	--
Fusor 2098 Crash Durable Structural Adhesive	90 min @ 70°F (21°C)	Immediately when mechanically fastened / 6 hr @ 70°F (21°C)	24 hr @ 70°F (21°C)
Fusor 152 Plastic Repair Adhesive	3-5 min @ 70°F (21°C)	30 min @ 70°F (21°C)	2 hr @ 70°F (21°C)
Fusor 114LG Plastic Finishing Adhesive	1-2 min @ 70°F (21°C)	--	1 hr @ 70°F (21°C)
Fusor 100EZ Plastic Repair Adhesive	40 min @ 70°F (21°C)	3 hr @ 70°F (21°C)	1 hr @ 180°F (82°C)
Fusor T21 Composite Adhesive	45 min @ 70°F (21°C)	4 hr @ 70°F (21°C)	1 hr @ 180°F (82°C)
Fusor 800DTM/803DTM Direct-to-Metal Adhesive/Sealant	25 minutes @ 70°F (21°C), 50% RH	--	Immediately or up to 30 days without a scuff

*Data is typical and not to be used for specification purposes.



PRODUCT SELECTION

Elastomeric Mounts LORD mounts are designed to support engines, cabs and accessory units, and accommodate frame racking and twisting while isolating vibration and absorbing shock. LORD mounts provide effective vibration isolation and noise attenuation with a robust mount designs. Consistent performance, high load bearing capabilities and a choice of stiffness characteristics are key features.

PART	ELASTOMER	APPLICATIONS	SAP #
ASSEMBLY CENTER BONDED	Natural Rubber	Cabs, Engines, Gen Sets, Fans/Blowers, Heating-Cooling	CB-2205-3
SANDWICH	Natural Rubber	Fans/Blowers, Heating-Cooling, Pumps, Electric Motors	J-14056-4
SANDWICH	Natural Rubber	Fans/Blowers, Heating-Cooling, Pumps, Electric Motors	SMA095-1200-1
COUPLING	Natural Rubber	Fans/Blowers, Heating-Cooling, Pumps	LCD-15500-02-C
SANDWICH	Natural Rubber	Fans/Blowers, Heating-Cooling, Pumps, Electric Motors	J-5665-46
KIT SANDWICH SAFETIED	Natural Rubber	Engines, Gen Sets, Fans/Blowers, Heating-Cooling	SSB33-1000-4

LORD, Maxlok, Fusor and "Ask Us How" are trademarks of LORD Corporation or one of its subsidiaries.

LORD provides valuable expertise in adhesives and coatings, vibration and motion control, and magnetically responsive technologies. Our people work in collaboration with our customers to help them increase the value of their products. Innovative and responsive in an ever-changing marketplace, we are focused on providing solutions for our customers worldwide ... Ask Us How.

**LORD Corporation
World Headquarters**

111 Lord Drive
Cary, NC 27511-7923
USA

Customer Support Center (in United States & Canada)

+1 877 ASK LORD (275 5673)

www.lord.com

For a listing of our worldwide locations, visit LORD.com.



LORD Definitions and FAQs for Service Work Trucks

DEFINITIONS

Aerial work platform (AWP) – Also known as a platform truck, aerial device, elevating work platform (EWP), or mobile elevating work platform (MEWP); is a mechanical device used to provide temporary access for people or equipment to inaccessible areas, usually at height.

Ambulance – Type I uses pickup truck chassis. Type II are straight conversion of a van with a raised roof rather than a modular body. Type III uses the cutaway van chassis with modular bodies.

Box Truck – Also known as a cube truck, cube van, box van, or straight truck, is a truck with a cuboid-shaped cargo area.

Cab Forward – Also known as Cab-over, COE, or forward control, is a body style of truck, bus or van that has a vertical front or “flat face,” with the cab sitting above the front axle. Also known as Low Cab Forward (LCF).

Cab-over – see *Cab Forward*.

Chassis Cab – A body style and type of vehicle construction often found in medium-duty truck commercial vehicles where the customer is given the “chassis” rails and a “cab.”

Cutaway van chassis – A “cutaway” is a full-size van that the manufacturer stopped building from just behind the driver and passenger seat. Used by second stage manufacturers for a wide range of completed motor vehicles. Can be either single rear wheel or dual rear wheel. Common application of this type of vehicle design and manufacturing includes small trucks, school buses, recreational vehicles, minibuses, and (Type III) ambulances.



Gross Vehicle Weight Rating (GVWR) – The maximum operating weight/mass of a vehicle as specified by the manufacturer including the vehicle’s chassis, body, engine, engine fluids, fuel, accessories, driver, passengers and cargo but excluding that of any trailers.

Heavy-duty Truck – Trucks that have a GVWR greater than 26,000 lb and are usually used for performing heavy duty work such as heavy duty loading/pick-up and concrete mixer applications used in construction. This usually includes (some) class 7 and class 8 vehicles.

Light-duty Truck – Trucks that fall within the GVWR segments class 1, 2, and 3.

Medium-duty Truck – Trucks that fall within the GVWR segments class 4, 5, 6 and sometimes 7.

Panel Van – Solid (rigid-bodies, non-articulated) van, smaller than a truck, without rear side windows.

Reefer – a refrigerated truck or van used for transporting temperature-sensitive goods.

Second Stage Manufacturer – known in the industry as a “bodybuilder,” builds such products as bus and truck bodies, ambulances, motor homes, and other specialized vehicles.

Step Van – also known as multi-stop trucks or walk-in delivery, step vans are a type of light-duty and medium-duty truck created for local deliveries to residences and businesses. They are designed to be driven either sitting down or standing up, and often provide easy access between the driver and goods. They are usually taller than full-size vans.



FAQ's

Q: Why is LORD focusing on bonding with truck body and trailer manufacturers?

A. We have helped many customers to implement efficient and durable bonding solutions at similar manufacturers and want to share our knowledge and product portfolio as it relates to your specific application.

Q: How did you come up with such an attractive waterfall analysis? If it really looked that good wouldn't everyone be using it?

A. We work with each customer to develop a cost savings analysis that applies to your specific manufacturing process. We would be more than happy to work with you and your specific data to see where we can help you realize the benefits of using LORD structural adhesives.

Q: How do adhesives improve my quality and durability?

A. Reduction of stress concentrations, and elimination of potential leak points. Elimination of potential galvanic corrosion related to dissimilar metals.

Q: How does adhesives reduce stress concentrations?

A. LORD adhesive utilizes 100% of surface area to bond and more evenly distribute the joint flange stresses. Stitch welding or rivets result in localized stress concentrations on the points of attachment.

Q: Why should I care about improving aesthetics?

A. Modern attractive looking truck bodies and trailers, reduced drag, and ability to custom wrap graphics.

Q: How can I improve my customer warranty rates?

A. LORD structural adhesives bond and seal in one step, this eliminates water leaks which damages precious cargo. Durability and life cycle of a bonded joint outlives its mechanically fastened counterpart.

Q: How much is this going to cost to implement?

A. Overall costs will be determined by your overall scale goals. Initial investment to start trials and validate it can be very minimal with hand applied dispensers. Your choice on full production fully integrated equipment can vary greatly depending on overall complexity and goals but we have typically seen significant costs savings once converting over to full production.

Q: How easy is it to switch from current manufacturing method over to adhesives?

A. LORD adhesives are designed to be simple to implement for most assembly processes. With multiple cure speeds available from several LORD

material families with only minimal surface prep required, LORD adhesive products and experienced LORD Representatives shorten the learning curve for immediate success.

Q: How long does it take to transition or changeover to this solution?

A. Depending on the requirements or validation needed, the changeover can be facilitated in just a few days or up to a few weeks depending on design and equipment considerations.

Q: Do I have to chance my current joint design?

A. Possibly, however most riveted or fastened joints have overlap joints that are adhesive friendly. Parts should be engineered towards joints that experience shear or compression forces and work to minimize designs that illustrate significant peel or tension.

Q: How do I qualify the proposed adhesive solution?

A. Adhesion performance testing, process trials and parts teardowns are excellent ways to qualify and build confidence in the application. LORD Tech Support can assist with choosing the right adhesive, testing and implementation.

Q: Where can I buy the adhesive?

A. LORD distributes through highly qualified authorized distributors who provide engineered solutions to utilize best in industry LORD adhesives with excellent value.

Q: How do I learn more about LORD and adhesives in general?

A. Training videos, user's instructions and tech tips are easily accessed at LORD.com. On site visits at the customer are encouraged where hands-on training and demonstrations are provided by LORD and its distributors. Also, check YouTube and Twitter for current information about LORD adhesives.

Q: How do we repair these bonded panels vs. mechanical panels.

A. LORD has provided valued solutions in the transportation industry since the 1990's with excellent results in repair solutions. LORD application support has provided knowledge and expertise with prospective manufacturers to create written repair procedures for bonded panel replacement and patch panel repair which in most cases illustrates viable cost savings and improved quality when compared to traditional welded and riveted designs. See LORD.com/Fusor for information on proven repair strategies for bonded parts.