LORD® STRUCTURAL ADHESIVES FOR SERVICE WORK TRUCKS

Selector Guide

Parker Lord

Chemical Concepts™

APPLICATIONS FOR SERVICE WORK TRUCKS

Using LORD® adhesives to bond truck bodies during manufacturing, rather than welding or fastening, can reduce labor costs and cycle time. In addition, LORD adhesives increase throughput, reduce material costs and weight, and improve strength. What makes us different is our exceptional technical support dedicated to ensure your every design need is met. Our adhesives bond to various substrates including coated, painted, bare metal substrates, plastics and composites. We offer multiple cure speeds to fit your application requirements. We also offer glass beads for bondline control to prevent over-clamping.

1 Sidewall Bonding:
Improve Aesthetics with Rivet Removal and Weld Reduction

2 Roof Bonding:
Accelerate Assembly Times While Improving Performance and Customer Perception

3 Panel Bonding:
Improve Warranty and Quality by Eliminating Corrosion and Leaks

4 Bonded HVAC Units:
Bond and Seal in One Step to Enhance Work Flow and Design

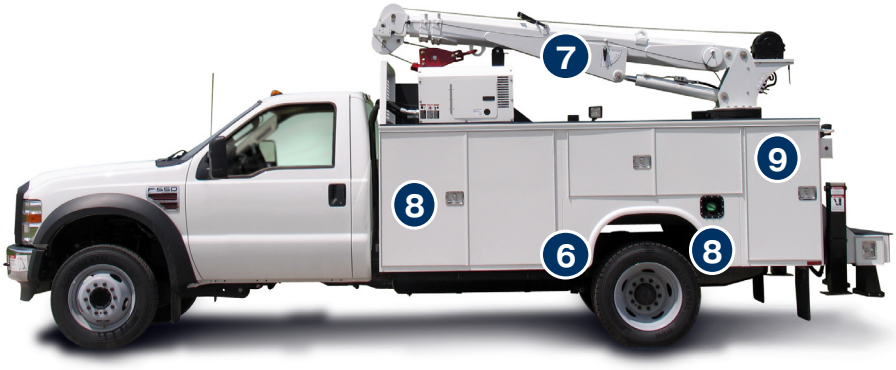
5 Door Closures:
Improve Appearance, Dimensional Stability and Stiffness

6 Seam Sealing:
Protect Against Corrosion and Cargo Damage, Direct-to-Metal Options Reduce Cost and Improve Throughput

7 Plastic Bonding:
Bond to Many Types of Plastics and Composites and Cross Bond to Metals Which Allows for Light Weighting and Sleek Designs

8 Metal Bonding:
Save Time and Money with Production Efficiencies and Reduced Re-work

9 Rivet/Weld Reduction:
Eliminate Leaks, Stress Cracks and Durability Issues While Reducing Manufacturing and Warranty Costs



PRODUCT SELECTION

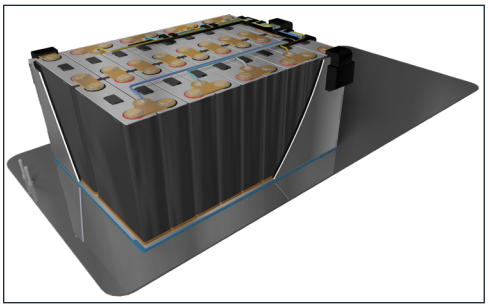
PRODUCT		SUBSTRATES						TYPICAL PROPERTIES*					
		Bare Metal	Composite	Painted Metal	Plastics	Cross Bonding	Specialty	Work Time @ 75°F (24°C)	Mix Ratio by Volume, Adhesive to Accelerator	Time to Handling Strength @ 75°F (24°C)	Accelerator(s)	Mixed Appearance	Attributes
LORD® 7800 FAST-CURE URETHANE ADHESIVE	A/C		✓	✓	✓	✓	✓	3 min.	1:1	12 min.	N/A	Black	• 2x Faster Processing Time • Equal Mix Ratio • Sag Resistance • No Odor
	A/D							6 min.	1:1	25 min.			
LORD® 7542 URETHANE ADHESIVE	A/B (UL)		✓	✓	✓	✓	✓	4-7 min.	1:1	1-2 hr.	N/A	Varies** (Black or Brown)	• Structural Bonding • Lower Viscosity for Easy Dispensing • Non Flammable
	A/C (UL)							11-15 min	1:1	2 hr.			
	A/D (UL)							20-30 min.	1:1	3 hr.			
LORD® 7545 URETHANE ADHESIVE	A/G		✓	✓	✓	✓	✓	1.5 min.	1:1	10 min.	N/A	Varies** (Off-white or Black)	• Bonds FRP, SMC, Plastics and Prepared Metals • Non-sag • Non Flammable
	A/B							3-5 min.	1:1	30 min.			
	A/C							6-8 min.	1:1	60 min.			
	A/D							11-18 min.	1:1	90 min.			
	A/E							22-38 min.	1:1	2-3 hr.			
	A/F							45-65 min.	1:1	4-5 hr.			
LORD® 7555 URETHANE ADHESIVE/ SEALANT	A/C		✓	✓	✓	✓	✓	3-5 min. @ 77°F (25°C)	1:1	1 hr. @ 77°F (25°C)	N/A	White Paste	• Bonds & Seals Plastics and Prepared Metals • Non-sag, non-yellowing • Paint & Finish Immediately
	A/E							45 min. @ 77°F (25°C)	1:1	5-6 hr. @ 77°F (25°C)			
LORD® 7610DTM DIRECT-TO-METAL ADHESIVE/SEALANT		✓	✓	✓	✓	✓	✓	25-35 min. @ 77°F (25°C)	N/A	6-12 hr. @ 77°F (25°C)	N/A	White Paste	• Single Component • No Mix • UV Resistant
LORD® ACRYLIC ADHESIVE WITH ACCELERATOR 19	403 (UL)	✓	✓	✓	✓	✓		2-4 min.	4:1	4-6 min.	19, 19 Black, 19GB, 19GB Grey	Tan Paste**	• Easy to Dispense • Withstands E-Coat & Powder Coat • Cold Impact
	406 (UL)							6-10 min.	4:1	12-17 min.			
	410 (UL)							20-30 min.	4:1	60-120 min.			
LORD® 810S LOW READ-THROUGH (LRT) ACRYLIC ADHESIVE WITH LORD ACCELERATOR 20GB		✓	✓	✓	✓	✓		8-12 min. @ 70°F (21°C)	2:1	20-25 min. @ 70°F (21°C)	20GB	Dark Grey Paste	• Ideal for Thin, Glossy and ACM Materials • Withstands E-Coat & Powder Coat
LORD® ACRYLIC ADHESIVE WITH LORD ACCELERATOR 25GB	850S (FAST)	✓	✓	✓	✓	✓		6-10 min.	10:1	18-24 min.	25GB	Red Paste	• Toughened • High Impact • Fatigue Resistant • Low Temp Environment • Withstands E-Coat & Powder Coat
	852S (SLOW)							20-25 min.	10:1	50-70 min.			
MAXLOK® ACRYLIC ADHESIVE WITH MX ACCELERATOR	T3S	✓	✓	✓	✓	✓		3-5 min. @ 77°F (25°C)	4:1	6-8 min. @ 77°F (25°C)	MX	Grey Paste	• Bondline Control • Glass Beads • High Impact • High Peel • Withstands E-Coat & Powder Coat
	T6S							6-9 min. @ 77°F (25°C)	4:1	20-24 min. @ 77°F (25°C)			
	T18S							18-24 min. @ 77°F (25°C)	4:1	48-72 min. @ 77°F (25°C)			

Refer to LORD Structural Adhesives Guide for full product information.
Refer to LORD UL-Approved Adhesives for Sign and Electrical Enclosure Bonding for listing of specific UL-Approved products.
*Data is typical and not to be used for specification purposes.
**Mixed appearance will vary based on accelerator/curative used.

COOLTHERM® MATERIALS FOR ELECTRIC SERVICE TRUCKS

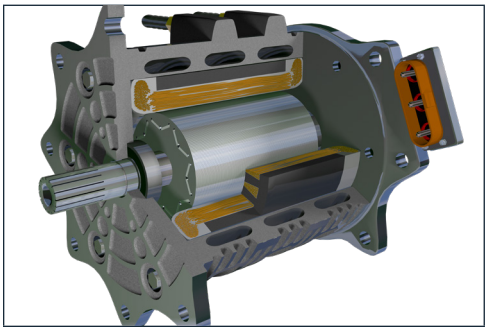
Electrifying service work trucks are an important part of achieving global CO2 reductions. Innovative e-truck designs can be achieved by using assembly and protection materials contributing to an overall lighter weight and high-performing electric vehicle.

Thermal management is crucial for electric truck applications to ensure that batteries, motors, charging systems, and other power electronics operate reliably, safely, and at optimal temperatures. CoolTherm thermal management materials reduce operating temperatures contributing to higher-performing electric transportation. This line of products includes liquid-dispensed thermally conductive gap fillers, coatings, potting and encapsulants and structural adhesives.



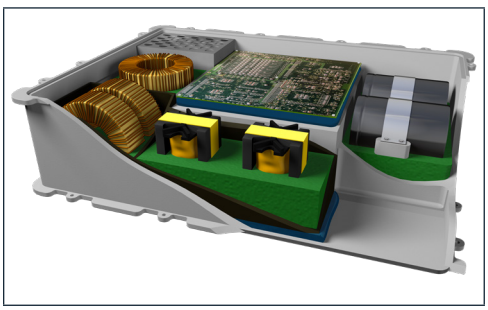
Battery Packs

As battery technology evolves towards increased energy density, the ability to manage heat during charge and discharge cycles is crucial for optimizing performance. Our CoolTherm thermal management materials are fully customizable and compatible with cylindrical, pouch and prismatic battery cells.



Electric Motors

We offer potting and encapsulant materials that are compatible with e-motors. Thermally-conductive epoxy and silicone encapsulants help manage heat, enabling you to increase the power density and life of your electric motor. Our studies have shown a temperature decrease of up to 50°C or an increase in power output up to 30% with CoolTherm.



Power Electronics

CoolTherm adhesives improve heat flow in inductors and transformers and optimize performance during charging & discharging. With low viscosity, these adhesives flow easily into crevices, enabling better impregnation of irregularly-shaped magnetic components and helping to reduce inductor hum.

Gap Fillers

Get the best performance out of your batteries by filling in surface imperfections with a thermally conductive gap filler designed with electric fleet applications in mind.

GAP FILLERS

PRODUCT	CHEMISTRY	THERMAL CONDUCTIVITY (W/m·K)	SHORE HARDNESS (OO)	DENSITY (g/cm³)
CoolTherm® SC-2000 SLW	Silicone	2.0	65	2.0
CoolTherm SC-3000 LD	Silicone	3.0	75	2.4
CoolTherm SC-1600	Silicone	3.7	89	3.3
CoolTherm UR-2000	Urethane	2.0	D55	2.6

- Two-Component
- Low Outgas Options
- Room Temperature and Heat Curing
- Electrically Isolative
- 1:1 Mix Ratio
- Protect Against Shock
- Damp Vibration

Adhesives

Formulated for MMD equipment, our thermally conductive adhesives provide rigidity and structural integrity.

ADHESIVES

PRODUCT	CHEMISTRY	THERMAL CONDUCTIVITY (W/m·K)	LAP SHEAR STRENGTH (MPa)
LORD® AC-902 LC	Acrylic	–	15 on nickel-plated steel
CoolTherm TC-2002	Acrylic	1.0	15.8 on aluminum
LORD 5206/55GB	Acrylic	–	19.3 on aluminum
LORD 852S/25GB	Acrylic	–	18.1 on aluminum

- Variable Cure Speeds
- Electrically Isolative
- Improve Design Flexibility
- Reduce Complexity
- Room Temperature or UV Cure

Coatings

Depend on strong, cost-effective coatings to provide insulating barriers around electric truck batteries and motors.

COATINGS

PRODUCT	CHEMISTRY	THERMAL CONDUCTIVITY (W/m·K)	DIELECTRIC STRENGTH (kV/mm)	TEMPERATURE RANGE (°C)
LORD JMC-700K	Epoxy	0.4-0.5	100 @ 50 µm	-40 to +180
Sipiol® UV	Acrylic	0.2-0.5	>90 @ 100 µm	-40 to +120

- Heat and UV Curing
- Electrically Isolative
- High Adhesion and Flexibility

Potting & Encapsulants

Our potting and encapsulants facilitate optimum heat transfer because of their high thermal conductivity and low viscosity.

POTTING

PRODUCT	CHEMISTRY	THERMAL CONDUCTIVITY (W/m·K)	VISCOSITY (cP @25°C)	DENSITY (g/cm³)
CoolTherm EP-3500	Epoxy	3.3	8000 @ 60°C	3.0
CoolTherm SC-324	Silicone	4.0	30,000	3.2
CoolTherm UR-389	Urethane	0.7	14,000	1.5

- Room Temperature and Heat Curing
- Electrically Isolative
- 1:1 Mix Ratio
- Improve Performance
- Protect Electronics
- Reduce Component Stress

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