LORD Fusor® 208B Panel Bonding Adhesive (Slow)

Description

LORD Fusor® 208B adhesive is a two-component, epoxy-based panel bonding adhesive offering extremely low odor during application and tack-free when cured. Fusor 208B adhesive can be used for panel bonding, weld bonding, and rivet bonding of large steel, aluminum and SMC/FRP body panels, such as quarter panels, rear body panels, floor pans and roof skins.

Features and Benefits

Convenient – emits low odor during application; cures to a tack-free surface, allowing panels to be painted and sanded with no need to remove adhesive squeeze out.

Versatile – bonds a variety of metal and plastic, including steel, aluminum and FRP; weld through with minimal burn back.

Environmentally Resistant – provides excellent corrosion protection to weathering.

Easy to Finish - can be tooled, wiped clean, sanded and/or painted; offers immediate paint time.

Application

Prepare – Follow the vehicle manufacturer's guidelines regarding the fastening of the replacement panel (welding, mechanical fasteners, or bond only) and their position on the removal of any metal coatings (zinc or aluminum coatings).

Remove existing adhesive and e-coating from metal flange surfaces to which adhesive will be applied. Grind the surface of all mating flanges (not greater than 1 inch [25.4 mm]) using an 80-grit disk or finer.

Pre-fit the new panel to ensure proper alignment and plan the mechanical fastening (STRSW welds or rivets) and clamping locations for the final installation. If pull rivets or solid rivets are being used, then the holes should be drilled at this time. Wipe bonding surface with solvent (acetone, heptanes, isopropyl alcohol, MEK, etc.), leaving no residue.

Typical Properties*

Appearance	Gray Paste
Work Time	90 minutes @ 70°F (21°C)
Clamp Time	Immediately when mechanically fastened; 4 hours @ 70°F (21°C); 30 minutes @ 140°F (60°C)
Paint Time	Immediately
Full Cure	24 hours @ 70°F (21°C); 1 hour @ 140°F (60°C)

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

Apply – Load the cartridge into the dispensing gun and remove the end caps. Level the plungers by expelling a small amount of adhesive to ensure that adhesive is coming out of both sides of the cartridge. Attach mixing tip and dispense a small amount of adhesive to verify the material is evenly mixed and the color is consistent.

Apply a small amount of adhesive to the bonding flange of both panels. Quickly spread adhesive over all bare metal, as a priming operation. Apply a 1/4 to 3/8 inch (6.4 to 9.5 mm) bead of adhesive to the prepared mating surfaces.

Secure the panel using clamps. Mating surfaces must be held in contact during the curing process. The glass beads in the adhesive will prevent over clamping. Apply screws or rivets in hard-to-clamp areas. After the panel has been positioned, do not pull it away from the vehicle. If repositioning is necessary, slide the panels against one another. This maintains contact between the two surfaces.

Note: Various applications, cleaners/solvents and coatings may not be compatible with this product and should be tested by the user before proceeding with intended repair procedure.

Finish – Weld the panel (STRSW) or install the appropriate mechanical fasteners (rivets) in their respective locations. Once fastened, remove any remaining clamps or temporary fasteners. If a bond-only application, the clamps/fasteners may be removed after 4 hours at 70°F (21°C), or 30 minutes at 140°F (60°C).

Adhesive squeeze out may be tooled, or removed and surface wiped clean with a solvent. Adhesive may be painted immediately. Check paint system compatibility before proceeding.

Complete cure requires 24 hours at room temperature (70°F [21°C]). Cure rate can be accelerated by applying modest heat [140°F (60°C)] for 1 hour.

Shelf Life/Storage

Shelf life is 24 months from date of manufacture when stored at 75°F (24°C) in original, unopened container.

Cautionary Information

Before using this or any LORD product, refer to the Safety Data Sheet (SDS) and label for safe use and handling instructions.

For industrial/commercial use only. Must be applied by trained personnel only. Not to be used in household applications. Not for consumer use.

Bond Performance*

Lap Shear @ Room Temperature (ASTM D 1002 & ASTM D 5868)

Substrates	0.032" CRS	0.060" CRS	ECPS	EGS	EPS
Results	2379 psi (16.4 MPa)	3042 psi (21.0 MPa)	2350 psi (16.2 MPa)	1916 psi (13.2 MPa)	1508 psi (10.4 MPa)
Failure Mode	C	C	C	C	P
Substrates	HDG	AL 6111	AL 6063T6	FRP	SMC
Results	1940 psi (13.4 MPa)	2540 psi (17.5 MPa)	2491 psi (17.2 MPa)	653 psi (4.5 MPa)	589 psi (4.1 MPa)
Failure Mode	C	C	C	FT	FT

Lap Shear @ 180°F (82°C) (ASTM D 1002)

Substrates	0.060" CRS
Results	1003 psi (6.9 MPa)
Failure Mode	C

Lap Shear @ -40°F (-40°C) (ASTM D 1002)

Substrates	0.032" CRS	0.060" CRS
Results	2605 psi (18.0 MPa)	3720 psi (25.6 MPa)
Failure Mode	C	C

Lap Shear after 500 hours Salt Spray (ASTM B 117)

Substrates	0.060" CRS	EGS	HDG	AL 6063T6
Results	2919 psi (20.1 MPa)	1910 psi (13.2 MPa)	1912 psi (13.2 MPa)	2634 psi (18.2 MPa)
Failure Mode	C	C	C	C

Imapct Wedge Peel (ISO 11343)

Substrates	0.032" CRS
Results	8.5 N/mm
Failure Mode	C

Substrate	Surface Treatment
Cold Rolled Steel (CRS), 0.032" and 0.060" thick	80-grit grind
E-coat Primed Steel (ECPS), 0.032" thick	Scuffed
Hot Dipped Galvanized Steel (HDG), 0.033" thick	80-grit grind
Electro Galvanized Steel (EGS), 0.031" thick	80-grit grind
2K Epoxy Primed Steel (EPS), 0.032" thick	Scuffed
Aluminum (AL) 6111, 0.038" thick	80-grit grind
Aluminum (AL) 6063T6, 0.063" thick	80-grit grind
Fiber Reinforced Plastic (FRP)	80-grit grind
Sheet Molded Compound (SMC)	80-grit grind

Bonded Parameters	Bond Area	Bondline Thickness	Cure	Mix Ratio
Metal Lap Shears (ASTM D 1002)	1.0"x0.5"	0.010"	24 hr @ RT	1:1 by Volume
Plastic Lap Shears (ASTM D 5868)	1.0"x1.0"	0.010"	24 hr @ RT	1:1 by Volume

Failure Mode Definition	Abbreviation
Cohesive Failure	C
Fiber Tear	FT
Primer to Substrate Failure	P

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

LORD Fusor® Repair Products Lifetime Guarantee*

LORD Corporation guarantees to the user that LORD Fusor® Repair Products (adhesives, primers, seam sealers and foams only), when used in strict accordance with LORD Corporation's application and use instructions, will provide a durable repair for the life of the vehicle per the product's technical data sheet. *The user is solely responsible for determining the Fusor product and application method for the repair.* Application and product guidance can be found on Fusor.com.

THIS EXPRESS WARRANTY IS MADE IN LIEU OF AND EXCLUDES ANY AND ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, BY OPERATION OF LAW OR OTHERWISE, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

LORD Corporation shall not be liable under any circumstance for any liability, loss, damage or expense directly or indirectly arising from the application and use of LORD Fusor Products sold hereunder or from any other cause. LORD Corporation shall not be liable under any circumstances for consequential, indirect or special damages. **LORD CORPORATION'S LIABILITY FOR BREACH OF WARRANTY HEREUNDER IS IN ALL INSTANCES LIMITED SOLELY AND EXCLUSIVELY TO THE REASONABLE COSTS OF REPAIR AND/OR REPLACEMENT OF THE BONDED METAL COMPONENTS OF THE VEHICLE.**

This guarantee shall only apply to the above referenced LORD Fusor products sold by LORD Corporation on or after January 1, 2001.

LORD Fusor Metal Bonding Adhesives shall only be used for the adhesive-only bonding (no welds or rivets) of metal to metal assemblies (steel or aluminum) in full or partial panel replacements of door skins, roof skins, quarter panels, rear body panels and other outer body sheet metal.

LORD Fusor products shall not be used for adhesive-only bonding of any structural component unless specifically recommended by the vehicle manufacturer. Structural panels must be replaced in strict compliance with vehicle manufacturer guidelines. If in doubt as to what is a structural component or the proper installation method, contact the vehicle manufacturer. Further, any LORD Fusor products used in marine composite repair, such as with personal water craft and the like, shall be limited to repairs above the water line.

If you have any questions or need to receive proper use instructions, contact the LORD Customer Support Center at +1 800 234 Fusor (3876) or visit Fusor.com.

To comply with the requirements of the LORD Fusor Repair Products Lifetime Guarantee, attach a copy of this completed page to the repair record, and retain with your files:

Vehicle Make/Model: _____

Vehicle Identification Number: _____

LORD Fusor Product(s) Used for Repair: _____

Lot Number(s) on Cartridge(s) Used for Repair: _____

**This guarantee is void if product is used after the date printed on the cartridge label. LORD Terms and Conditions of Sale shall apply to all sales of LORD Fusor products.*

I-CAR® INDUSTRY TRAINING ALLIANCE™

ASE Continuing Automotive Service Education CERTIFIED TRAINING PROVIDER

Instructions contained in this document need to be followed to qualify for the LORD Fusor Lifetime Guarantee. Values stated in this technical data sheet represent typical values as not all tests are run on each lot of material produced. For formalized product specifications for specific product end uses, contact the Customer Support Center.

Information provided herein is based upon tests believed to be reliable. In as much as LORD Corporation has no control over the manner in which others may use this information, it does not guarantee the results to be obtained. In addition, LORD Corporation does not guarantee the performance of the product or the results obtained from the use of the product or this information where the product has been repackaged by any third party, including but not limited to any product end-user. Nor does the company make any express or implied warranty of merchantability or fitness for a particular purpose concerning the effects or results of such use.

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 Ask Us How™