

Fusor[®] 110B/111B Metal Bonding Adhesive (Fast)

Technical Data Sheet

Fusor[®] 110B/111B adhesive is a two-component, acrylic-based metal bonding adhesive offering faster cure time than typical panel bonding adhesives. Fusor 110B/111B adhesive can be used for patch panel bonding and weld bonding of properly prepared dissimilar metals, cab corners, panel sections and aluminum trailer repair patches.

Features and Benefits:

Snap Cure – provides fast room temperature cure, resulting in reduced cycle times.

Versatile – bonds a variety of metal, including steel and aluminum; no welding required; can be riveted and resistance welded.

Environmentally Resistant – acrylic chemistry provides excellent corrosion protection over epoxy adhesives.

Application:

Prepare – Follow the vehicle manufacturer's guidelines regarding the fastening of the replacement panel (welding, mechanical fasteners, or bond only).

Remove existing adhesive, e-coating, corrosion protection or galvanized 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 60-grit disk or finer.

If metal has a pewter appearance, then not all of the galvanized coating has been removed. The metal should be shiny in appearance. If sectioning, the seam will need a 10° bevel for a smooth transition into the existing panel (see Figure 1).

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.

Apply – Load the cartridge into the applicator and remove the end cap. 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.

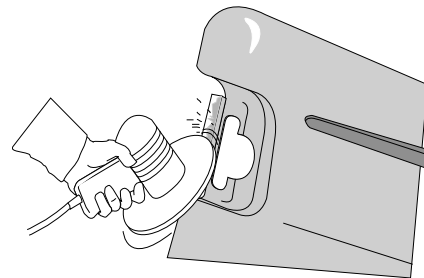


Figure 1. If Sectioning, 10° Bevel Required

Typical Properties*

Appearance	Green Paste
Base Chemistry	Acrylic
Work Time	5 minutes @ 70°F (21°C)
Clamp Time	20 minutes @ 70°F (21°C)
Cure Time	2 hours @ 70°F (21°C)

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

Apply a 3/8 to 1/2 inch (9.5 to 12.7 mm) bead of adhesive to the prepared mating surfaces (see Figure 2).

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 20 minutes at 70°F (21°C).

Adhesive squeeze out should be removed and surface wiped clean with a solvent.

Cure requires 2 hours at room temperature (70°F [21°C]).

Shelf Life/Storage

Shelf life is 12 months from date of manufacture when stored at 75°F (24°C) in original, unopened container.

Cautionary Information:

Before using this or any Parker 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.

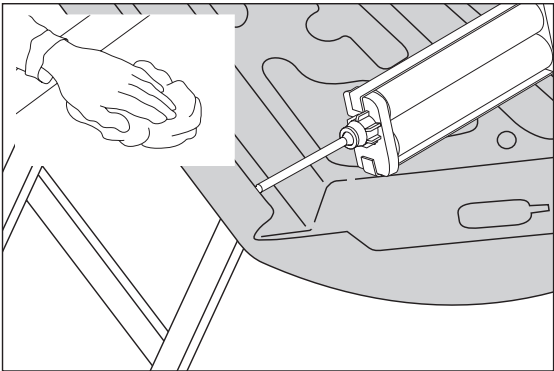


Figure 2. Apply Adhesive

Bond Performance*	
Lap Shear Strength ASTM D 1002	
Cold Rolled Steel	1600 psi (11 MPa); cohesive failure
Aluminum	1935 psi (13.3 MPa); cohesive failure
Torsional Impact Resistance GM 9751 P	
Cold Rolled Steel	>106 in-lb (>11.98 N-m); no adhesive failure
Aluminum	>106 in-lb (>11.98 N-m); no adhesive failure

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

Fusor® Repair Products Lifetime Guarantee*

LORD Assembly & Protection Solutions Division of Parker-Hannifin Corporation ("Parker Lord") guarantees to the user that Fusor® Repair Products (adhesives, primers, seam sealers and foams only), when used in strict accordance with Parker Lord 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.

Parker Lord shall not be liable under any circumstance for any liability, loss, damage or expense directly or indirectly arising from the application and use of Fusor Products sold hereunder or from any other cause. Parker Lord shall not be liable under any circumstances for consequential, indirect or special damages. **PARKER LORD'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 COMPONENTS OF THE VEHICLE.**

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

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 where approved by the vehicle manufacturer.

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 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 Parker Lord Customer Support Center at +1 800 234 Fusor (3876) or visit Fusor.com.

To comply with the requirements of the 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: _____

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. Parker Lord Terms and Conditions of Sale shall apply to all sales of Fusor products.*



Values stated in this document 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 Parker Lord has no control over the manner in which others may use this information, it does not guarantee the results to be obtained. In addition, Parker Lord 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.

WARNING — USER RESPONSIBILITY. FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

This document and other information from Parker-Hannifin Corporation, its subsidiaries and authorized distributors provide product or system options for further investigation by users having technical expertise.

The user, through its own analysis and testing, is solely responsible for making the final selection of the system and components and assuring that all performance, endurance, maintenance, safety and warning requirements of the application are met. The user must analyze all aspects of the application, follow applicable industry standards, and follow the information concerning the product in the current product catalog and in any other materials provided from Parker or its subsidiaries or authorized distributors.

To the extent that Parker or its subsidiaries or authorized distributors provide component or system options based upon data or specifications provided by the user, the user is responsible for determining that such data and specifications are suitable and sufficient for all applications and reasonably foreseeable uses of the components or systems.



Parker Lord
Engineered Materials Group
111 LORD Drive
Cary, NC 27511-7923
USA
phone +1 877 (275 5673)
www.Parker.com/APS