



Process for Success



Ford approves 3M's Panel Bonding Adhesive and File Belt Sander as products for repairing the 2015 F-150.



Aluminum Rivet Bonding

1	Host Panel Preparation		Using a grade 80 abrasive belt, remove remaining rivet material from host panel. Prep remaining mating flanges on host panel with a coarse Scotch-Brite™ Durable Flex Belt.
2	Mating Flange Panel Preparation		Remove Ecoat from replacement panel mating flange areas using a Scotch-Brite™ Belt or Clean N Strip Disc.
3	Dry Fit Panel		Dry fit replacement panel and complete any necessary metal straightening at flanges areas.
4	Clean		Clean host panel and replacement panel mating flange areas with a VOC compliant surface cleaner.
5	Rivet Preparation		Identify replacement rivet sites and prepare the surface for the type of rivet recommended by the manufacturer. (For blind or solid rivets, drill all necessary holes.) Remove panel once complete.
6	Pre Assembly NVH Replacement		If vehicle construction necessitates, apply 3M™ NVH Dampening Material or 3M™ Flexible Foam at original locations as required.
7	Apply Bonding Adhesive		Apply adhesive to mating flange areas on host panel and replacement panel covering all bare metal areas. Apply additional bead of adhesive at mating flange area to ensure proper bond line thickness.
8	Install Replacement Panel		Install replacement panel to host panel taking care to avoid scraping off any adhesive during installation. Clamp in place.
9	Install Rivets and Welds		Install replacement rivets to all areas as recommended by the OE manufacturer. Note: Rivets must be installed while adhesive is uncured. Weld cosmetic joints/splices as necessary or recommended by the OE Manufacturer.
10	Adhesive Clean Up		Remove clamps and tool excess adhesive squeeze out from repair area prior to curing to seal the repair. An acid brush works well to remove adhesive from between clamps. Note: Grinding to remove excess cured adhesive can expose bare metal, causing corrosion.
11	Post Assembly Foam Replacement		Apply foams at original locations as required.

Note: Follow recommended internal corrosion protection processes prior to vehicle final assembly.



Product List

	<ul style="list-style-type: none"> • 3M™ File Belt Sander, PN 28366 • 3M™ Cubitron™ II File Belt, grade 80+, PN 33446 • Scotch-Brite™ Durable Flex Belt, CRS, PN 64475
	<ul style="list-style-type: none"> • Scotch-Brite™ Roloc™+ Clean N Strip XT Disc, PN 07470 • Scotch-Brite™ Roloc™+ Clean N Strip TR Disc, PN 07466 • 3M™ File Belt Sander, PN 28366 • Scotch-Brite™ Durable Flex Belt, CRS, PN 64475
	<ul style="list-style-type: none"> • 3M™ File Belt Sander, PN 28366 • Scotch-Brite™ Durable Flex Belt, CRS, PN 64475
	<ul style="list-style-type: none"> • 3M™ NVH Dampening Material, PN 04274 • 3M™ Flexible Foam, 200 mL, PN 08463
	<ul style="list-style-type: none"> • 3M™ Panel Bonding Adhesive, 200 mL, PN 08115; 200 mL, PN 08116; 450 mL DMS, PN 58115 • 3M™ SMC/FRP Panel Adhesive, 200 mL, PN 08219
	<ul style="list-style-type: none"> • 3M™ Flexible Foam, 200 mL, PN 08463 • 3M™ Rigid Pillar Foam, 200 mL, PN 08458



Think About Your Health



3M™ E-A-R™ Skull Screws™
Ear Plug, PN P1300



3M™ Half Facepiece
Respirator, PN 07182



3M™ Lexa™
Protective Eyewear, PN 15200

For ordering information, contact your 3M Sales Representative



Aluminum Frequently Asked Questions

Question		Answer	Question		Answer
1	Do I need special sandpaper?	No. You don't need special sandpaper, but you do need dedicated sandpaper to avoid cross-contamination between steel and aluminum surfaces. Commonly accepted repair practices for steel repairs will translate to aluminum specific repairs. Traditional 3M Abrasives are well suited for aluminum repairs, but abrasives and tools previously used on steel must be kept away from aluminum repair areas and vice versa.	7	Do 3M panel bonding adhesives still retain lifetime warranties with aluminum?	Yes, provided all proper procedures are followed.
2	What adhesives do we use?	Commonly accepted repair practices and products for steel repairs will translate to aluminum specific repairs. 3M Adhesives will work on aluminum, but it's always a good idea to follow OEM repair recommendations for preferred products and processes.	8	Do I need special air tools?	It is highly recommended to use separate air tools dedicated to aluminum repairs OR tools that have been thoroughly cleaned with compressed air to remove any steel particles. Use caution not to cross contaminate work surfaces.
3	What seam sealers are best?	Commonly accepted repair practices and products for steel repairs will translate to aluminum specific repairs.	9	Do I need special tools or clamps?	Yes. Use separate hand tools designed for aluminum repairs (e.g., hammers, dollys, clamps, files, drill bits, saw blades, etc.). These tools are usually either non-metallic, or have a highly polished surface to ensure that steel particles will not transfer while being used.
4	Are the 3M body fillers and glazes going to stick?	Yes. 3M premium body fillers and glazes are applicable to aluminum repairs.	10	What aluminum welder do you recommend?	Welder technology has improved greatly in the last few years for aluminum. There are many great models, but it's best that you explore models that meet OEM recommendations for the types of vehicles that you work on.
5	Do I need to take special care to help maintain proper air quality for the worker?	Yes. If engineering controls are not adequate to provide breathing quality air in the work environment, then respiratory protection is required.	11	Can 3M coatings be applied direct to aluminum?	Commonly accepted repair practices and products for steel repairs will translate to aluminum specific repairs. Direct to metal coatings may be applied as such.
6	How long can bare aluminum be exposed before corrosion begins?	Oxidation will begin once aluminum is exposed to atmosphere. Oxidation should be removed throughout the repair by re-abrading and cleaning the surface after each hour of exposure.	12	Can I use the same piece of abrasive on steel and aluminum substrates?	No. It is very important to use a new piece of abrasive and thoroughly clean tools or use separate tools when going between work surfaces to avoid cross contamination of work surfaces. Contamination of one substrate from another causes galvanic corrosion and will eventually lead to paint failure.

Individual Product Instruction and Safety Information:

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