Weld Bonding (Excluding Door Skin)

1 

Host Panel Preparation
Using a grade 80 abrasive belt, remove remaining weld nugget material from host panel. Prep remaining mating flanges on host panel with a coarse Scotch-Brite™ Belt to remove all adhesive, corrosion and coatings.

2 

Mating Flange Panel Preparation
Remove Ecoat from replacement panel mating flange areas using Scotch-Brite™ Belt or Clean N Strip disc.

3 

Clean
Clean host panel and replacement panel mating flange areas with a VOC compliant surface cleaner.

4 

Dry Fit Panel
Dry fit replacement panel and complete any necessary metal straightening at flanges areas.

5 

Weld-Thru Primer
Use Scotch-Brite™ Belt to prepare metal surfaces. Clean and apply weld-thru primer to all areas requiring MIG welding.

6 

Spot Weld Surface Preparation
Identify replacement spot weld sites and remove Ecoat using Scotch-Brite™ belt where spot weld tips will contact host and replacement panel. Remove panel once complete.

7 

Pre-Assembly NVH Replacement
If vehicle construction necessitates, apply NVH material or foams at original locations as required.

8 

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 areas.

9 

Install Replacement Panel
Install replacement panel to host panel. Clamp in place.

10 

Spot Weld
Spot weld while adhesive is uncured at prepared weld sites. Follow welder settings determined from test panel.

11 

Adhesive Clean Up
Remove clamps and tool excess adhesive squeeze-out from repair area prior to curing to seal the repair. **Note: Grinding to remove excess adhesive can expose bare metal, causing corrosion.**

12 

Post-Assembly Foam Replacement
Apply foams at original locations as required.

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

⚠ WARNING
Follow OEM and/or welder manufacturers' recommended procedure for making and testing welds. Before welding on a vehicle, test welds must be made to ensure proper weld quality and welding machine settings.

Product List

3M™ Mini File Belt Sander, 330mm, PN 33573

3M™ Cubitron™ II File Belt, 10mm x 330ml, 80+, PN 33440

3M™ Scotch-Brite™ Durable Flex Belt, CRS

Scotch-Brite™ Roloc™ Clean N Strip XT Disc CX-DR

Scotch-Brite™ Roloc™+ Clean N Strip TR Disc, PN 07466

3M™ Weld-Thru Coating II, PN 05917

3M™ Flexible Foam, 200ml, PN 08463

3M™ Impact Resistant Structural Adhesive 200ml, PN 07333

3M™ Panel Bonding Adhesive,
200ml PN 08115
50ml PN 38315

3M™ Rigid Pillar Foam, 200ml PN 08458

Think About Your Health

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

3M™ Half Face Welding Respirator Kit, PN 6228

3M™ Secure Fit™ 200 Series Anti-fog Eyewear, Clear Frame, PN 201AF-AS

Not a complete list. Select protective eyewear, appropriate gloves, hearing protection, respirator and protective clothing based on your job and exposure assessment.