



Quarter Panel Bonding Guide

	Panel 60
Work Time	60 minutes
Handling Strength	4 hours at room temperature or 10-15 minutes @ 180°F
Paint Time	8 hours at room temperature or 25-30 minutes @ 180°F

* All data taken at 23°C (74° F)

Introduction:

PLIOGRIP by Valvoline Panel 60 is a two-component structural epoxy cartridge system intended for use in secondary panel bonding (e.g., roof skins, door skins, quarter panels and rear body panels). This document is intended as a general guide for making a successful repair. For detailed guidelines, refer to the specific OEM repair procedure.

Panel Removal and Preparation:

1. Straighten any damage to vehicle prior to removing panels.
2. Remove large portions of the panel, making sure not to cut into the flanges.
3. Remove the outer welded flanges using a spot weld cutter tool.
4. Straighten any damage to the flanges with a hammer and dolly.
5. Grind all adhesive, paint, galvanized coatings, and e-coats from both surfaces to be bonded using 36-grit abrasive discs. Be sure to grind all bonding areas to bare steel. **Note: Continue to grind until a constant flow of sparks is observed coming off the grinding disc to ensure all the galvanizing coating is being removed.**
6. Blow off both surfaces with clean, dry air.
7. If sectioning is required, bevel to a knife edge on the new panel that will be cosmetically finished. **Note: This will allow a smooth transition into the existing panel allowing an undetectable repair. For proper sectioning joints, see Illustrations 1 and 2. Flanging joint is not recommended.**
8. Pre-fit new panel for proper alignment. **Note: Make sure suspension is loaded during pre-fit.**
9. Remove the part from the vehicle, then clean all surfaces with a prep-solvent.

Panel Installation:

1. Remove the cap of the adhesive cartridge by prying the uppermost slot with a flat screwdriver. The cap may be retained for future storage.
2. Properly place the cartridge into the gun. Prior to attaching the mixer, dispense a small amount of adhesive to ensure both sides flow evenly.
3. Attach mixer, and dispense two inches for proper mix.
4. Apply a 3/8- to 1/2-inch bead of adhesive to all areas to be bonded then spread or brush the adhesive evenly, making sure to cover all surfaces of the bare metal. **Note: This eliminates exposed metal, which would be susceptible to corrosion. After both flanges have been covered, apply another bead to either flange for mating.**

5. Align the new panel in place, and apply even pressure. After the panel has been positioned, do not pull away from the vehicle. If repositioning is required, slide the panels against one another to ensure no air is trapped in the bond line.
6. Clamp tightly in place every 4 - 6 inches. **Note: Panel 60 adhesive incorporates glass bead technology to ensure proper panel gap and to prevent over-clamping.**
7. Install screws or rivets in hard-to-clamp areas.
8. Tool the adhesive squeeze-out into areas that require a seam sealer.
9. Clamp a minimum of 4 hours at 23°C / 74°F. Longer clamp times may be necessary if lower temperatures are experienced. Clamp times may be accelerated by use of a heat gun or lamp for 10-15 minutes at 180° F.
10. Remove any adhesive from the section area. Apply fiber-filled body filler, then sand, and finish with conventional body filler.
11. Allow proper dry time.
12. Finish, sand and paint per paint manufacturer's recommendation.
13. For future use of the adhesive, remove cartridge from the gun and either leave on the mixer tip or replace the original cap.

Illustration 1:

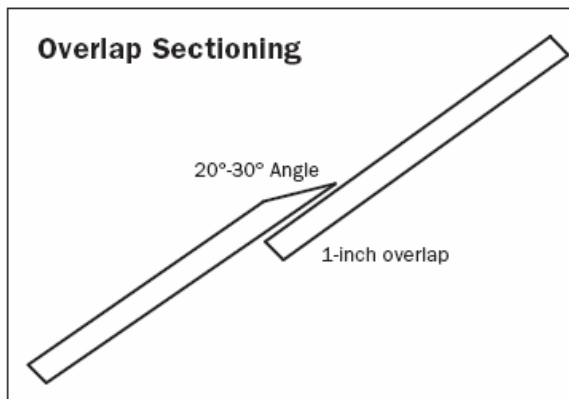
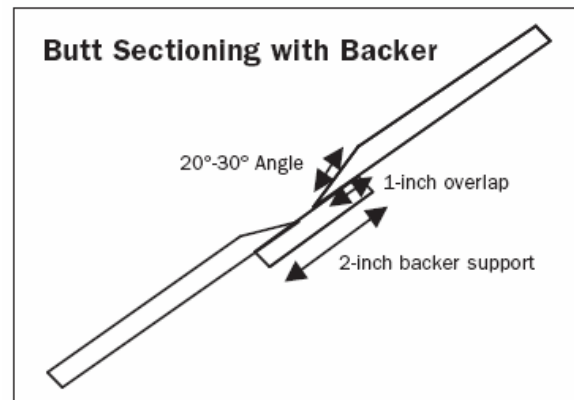


Illustration 2:



CAUTION: This product contains ingredients which could be harmful if mishandled. Contact with skin and eyes should be avoided, and necessary protective equipment and clothing should be worn. Do not breathe vapor or dust. Application of this product and all sanding activities should be performed in areas with adequate local exhaust ventilation, using ventilation equipment designed to reduce exposure to chemical vapors and dust.

IMPORTANT INFORMATION: Refer to the Material Safety Data Sheet (MSDS) for information on safety and handling before use. Ashland's cartridge system is sold as a kit, and performance has been verified using the kit content. Do not attempt to use other mixers in the application of this product. Additional mixers are available. This Repair Guide is incorporated as part of Ashland's Recommendations for Use of PLIOGRIP by Valvoline products. Failure to adhere to recommendations in this Repair Guide and the Instructions sold with the product voids the Lifetime Warranty.

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