8414 INTER-MIX 60

SMC Panel Bonding Adhesive

SMC BODY PANEL REPLACEMENT

1. Remove the damaged panel and all of the old adhesive from the vehicle. This can be accomplished by using a heat gun, putty knife and an air chisel. Be careful not to damage the vehicle structure. Mill and drill pads must be replaced if damaged and at appropriate height and length and width dimensions.
2. Wash all surfaces with soap or IES Super Foam (4535) and rinse with water. Next, use IES Super Clean (1700) or IES Specialty Adhesive Remover (1780) to remove any grease, wax or other contaminates. Allow to dry completely.
3. Remove all paint, primer, corrosion and rust from metal bonding areas using a 36 grit Abrasive Trim-Kut Disc® (7060) .
4. Straighten all metal bonding areas and temporarily clamp the replacement panel for proper alignment and fit.
5. Remove the replacement panel from the vehicle.
6. Clean all metal areas to be bonded with IES Super Clean (1700) or IES Specialty Adhesive Remover (1780) to remove any grease, wax or any other contaminates. Allow to dry.
7. Using a 36 grit Abrasive Trim-Kut Disc® (7060) , scuff sand the mating edge of the new panel. Blow off SMC bonding area with clean compressed air.
8. Follow the enclosed “Directions for using IES Dual-Mix Cartridge products”.
9. Apply IES SMC Panel Bonding Adhesive (8414) to all areas to be bonded. This means the replacement panel as well as the vehicle. Using a plastic spreader or brush, tool out the adhesive to provide a base coat for an additional adhesive bead, ensuring all bare metal surfaces are coated.
10. Apply a bead of IES SMC Panel Bonding Adhesive (8414) approximately 1/4” from the inside edge of the replacement panel.
11. Clamp the panel into its proper position. When repositioning , slide the panel. Never lift the panel when repositioning. Apply clamps at 12” intervals or closer if necessary. In areas where clamps can not be applied, use sheet metal screws to draw the panel down wherever there is not a flush fit.
12. Tool any adhesive “squeeze out” to seal the outside seam along the bonded edge of the panel.
13. Clamps may be removed in 4 to 5 hours. Panel may need to remain clamped if temperature is below 73°F or if there is any tension on the panel. Cure time is 24 hours. De-clamping time and cure time can be accelerated by applying heat with a heat gun or heat lamps. Be careful not to overheat. Do not exceed 180°F.

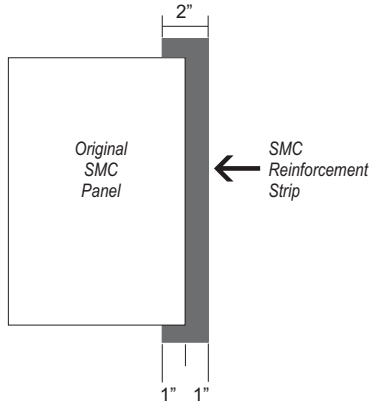
Temp	De-clamping Time	Cure Time
73°F	4 to 5 Hours	24 Hours
140°F	2 Hours	15 Hours
160°F	1 Hour	12 Hours

CAUTION: Although IES SMC Panel Bonding Adhesive (8414) is classified as a structural adhesive, it SHOULD NOT be used to bond structural components such as rails, core supports, pillars and rocker panels.

SECTIONING PANELS

Sometimes it is necessary to section body panels, especially when repairing portions of large body panels.

1. Cut the damaged panel at the point where the sectioning will occur.
2. Remove the damaged panel using a heat gun. Apply heat (about 400°F) to the bonding seams of the damaged panel and pry apart.
3. Wash all surfaces with soap or IES Super Foam (4535) and rinse with water. Next, use IES Super Clean (1700) or IES Specialty Adhesive Remover (1780) to remove any grease, wax or other contaminates. Allow to dry completely.
4. Make sure all mill and drill pads are in place. Straighten all metal bonding areas and remove all paint, primer, corrosion and rust from metal bonding areas using a 36 grit Trim-Kut Disc (7060).
5. Create a reinforcement strip by cutting a 2” wide strip the length of the seam from the old panel. This reinforcement strip will be bonded to the backside of the original body panel. (1” will under lap original panel and 1” will stick out to attach to the new body panel). Ensure that the reinforcement strip is the same contour as the front panels that it is going to be bonded to.
6. To bond the reinforcement strip to the backside of the original panel, scuff sand the backside with 36 grit sand paper in the area to be bonded. Sand the complete bond side of the reinforcement strip.



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SECTIONING PANELS - continued

7. Pre-fit reinforcement strip to ensure proper fit. Decide whether you will use clamps or screws to hold it in place.
8. Using a 36 grit Abrasive Trim-Kut Disc® (7060), scuff sand the mating edge of the new panel. Blow of all surfaces to be bonded.
9. Place adhesive cartridge in the applicator gun. Break off the end plug from the cartridge. Pump the gun until both parts (A & B) are equally flowing from the cartridge. Install the mixing tip. (See separate "Directions for using IES Dual-Mix Cartridge products" for gun loading instructions).
10. Apply a 1/4" - 5/16" bead of IES SMC Panel Bonding Adhesive (8414) to the bond area of the reinforcement strip that will mate with the original body panel. Clamp reinforcement strip into position and allow to cure. Clamp so the adhesive will spread over the bond area. Do not over tighten.
11. After the adhesive has cured, remove clamps and grind away all excess adhesive.
12. Follow the directions titled "SMC Body Panel Replacement" provided in the first section of these directions. Be sure to leave a 1/4" gap in-between the two panels. After you have installed the new sectioned panel, proceed to the following section titled "Applying A Bridge Patch To A Sectioned Joint".

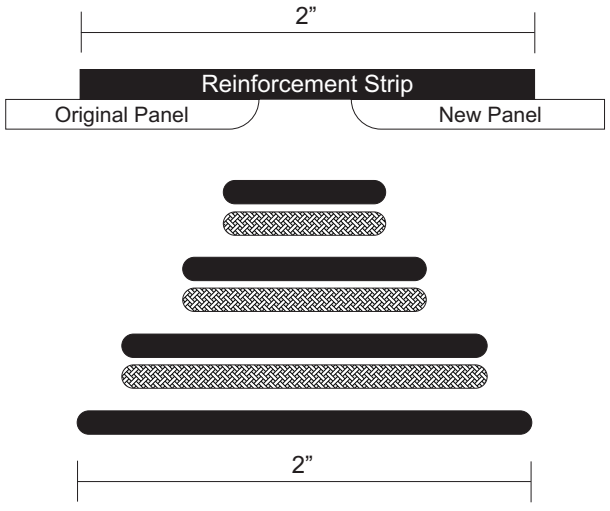
NOTE: For smaller sections, you may want to use IES HI-STRESS Epoxy (8416), which provides a faster set up time.

APPLYING "BRIDGE PATCH" TO A SECTIONED JOINT

When completing a sectioned joint on some composites, thermal expansion must be considered as well to prevent "bull's eyes" or "read throughs" in the final repair. To help prevent this, it is recommended to use a"Bridge-Patch".

1. In the joint area where the two body panels come together, grind down a 2" valley using IES 36 grit Trim-Kut Disc (7060). Grind from the center of the joint down to the reinforcement strip, then a gradual taper outward, creating a valley about 2" wide.
2. Build a "Bridge Patch" using fiberglass body repair tape and INTER-MIX 60 SMC Panel Bonding Adhesive (8414). See Illustration to the right.
3. Begin by cutting three pieces of fiberglass tape. Start with a small width, then gradually increasing in size to just slightly smaller than the perimeter of the sanded area.
4. Wipe with a clean, dry cloth to ensure a clean surface.
5. Using IES 36 grit Abrasive Trim-Kut Disc (7060), scuff sand the mating edge of the new panel. Blow off surfaces to be bonded with clean, compressed air.
6. Place adhesive cartridge in the applicator gun. Remove the end plug from the cartridge. Pump the gun until both parts (A & B) are equally flowing from the cartridge.(See separate INTER-MIX gun loading instructions).
7. Apply adhesive to the joint area. Using a spreader or brush, smooth out to a thickness of 1/16". Place the narrowest piece of fiberglass tape onto the joint. Apply another coat of adhesive and smooth out with a spreader. Continue layering fiberglass tape and adhesive until the valley has been filled.
8. Apply a flexible plastic film over the completed "bridge-patch". A roller may be used to work the adhesive into the repair. Roll from the center,out toward the sides.
9. Allow adhesive to set or heat set using a heat gun or heat lamp for 5 to 10 minutes at 180°F. Be careful not to over heat as damage may occur to the panel and the adhesive.
10. After adhesive is set and cooled, remove the plastic film and sand off all excessive adhesive. Sand the repair with 80 grit sandpaper. Make sure to cut in slightly below the SMC surface.
11. Apply a skim coat of IES #8001 Hi-Stress Epoxy (8001/8416) and finish.

(The reinforcement strip needs to be the same contour as the front panels it will be bonded to.)



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