

## Repairing Chrysler Sebring Door Cladding

The '95 to current Chrysler Sebring is a very attractive car, made more attractive with the extensive use of plastic bodyside cladding that integrates the style of the car with the front and rear bumpers. The front and rear bumper covers are polyurethane (PUR), which is best repaired with the 5003R1 polyurethane welding rod. The repair of urethane bumpers was covered in the Fall 1998 issue of Plastic Pointers. If you're missing that issue, download it from our website at [www.urethanesupply.com](http://www.urethanesupply.com).

The bodyside cladding is made from TPE, or thermoplastic elas-

tomer. The term "thermoplastic elastomer" is not very useful for discovering what the material is made from. In fact, it's about as useful as being told you are going on a blind date with a "woman" without knowing her age, personality, appearance, or other vital statistics!

TPEs can be made from a variety of polymer bases, but most in use on automobile body parts are similar to TPOs in that they are polypropylene-based with ethylene-propylene rubber elastomers blended in. So when you see "TPE" on an automotive exterior body part, repair it like a TPO and

you can't go wrong.

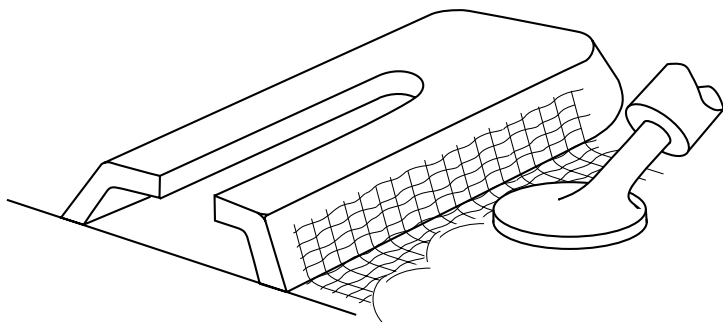
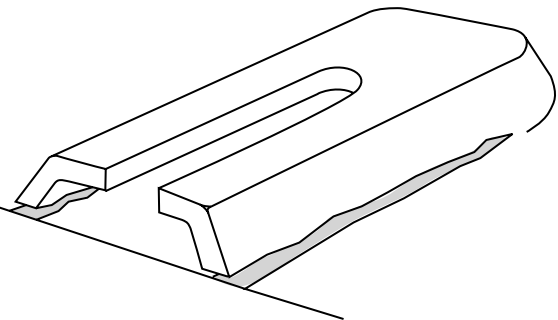
Curiously, there are a lot of damaged Sebring door cladding panels, and it's not because Sebrings get backed into in the parking lot more frequently than other cars. It's due to a design defect from the factory that allows the door cladding panel to slip forward on its mounting pins. When this happens, the front edge of the cladding hits the front fender, causing the mounting tabs on the backside of the cladding to pop off when the owner opens the car door.

As a result, a side cladding that looks perfect on the outside may be

### TECH STEP

**1**

The tabs molded in the backside of the Chrysler Sebring door cladding often break like this. These can be easily repaired with the 2045W reinforcing wire mesh and 5003R8 Uni-Weld Ribbon. Repairing the part saves time and money since a replacement part would need to be refinished.



**2**

To repair the tab, first cut a piece of the 2045W Stainless Steel Reinforcing Mesh to size with a pair of sharp scissors. Melt it in as shown with the round flat tip of the airless plastic welder. Be careful not to press too deeply as this might distort the outer surface of the cladding.

After reinforcing with the mesh, sand melted plastic by hand with coarse sandpaper to remove shine. Then melt 5003R8 Uni-Weld Ribbon onto the surface to cover the mesh. After Uni-Weld cools, sand and smooth the tab.

unusable just because the tabs are broken off the backside. A replacement part costs \$107, unpainted, so it's worth spending a few minutes to repair, especially since repairing the part will save having to refinish it.

Follow the instructions in our "Tech Step" feature to repair. We're using the same technique that comes in handy in doing many repairs on thermoplastics. Use the 2045W Stainless Steel Reinforcing Wire Mesh to tie the broken pieces together, then cover with 5003R8 Uni-Weld Ribbon. This technique is useful for fixing tabs and broken mounting holes on bumpers, headlights, and any other thermoplastic.

Be careful not to melt the mesh in too deeply when doing this repair. If the hot welder tip is pressed too deeply into the cladding's base material, it may distort the plastic on the front side. Fortunately, the plastic is pretty thick, so you can melt the mesh in about 1/16" without causing any problems.

The only type of plastic which you *cannot* reinforce with this method is polyurethane (PUR). Because PUR is a thermoset plastic, it is not a meltable material. Therefore, you cannot melt the 2045W reinforcing mesh directly into the plastic. Luckily, the 5003R1 polyurethane welding rod provides a very strong, tough repair by itself, so no reinforcing mesh is necessary.

## Wipe out the Wax with Bumper and Trim Black!

On the back page of our last issue of Plastic Pointers, we introduced a new product called



*Bumper & Trim Black is packaged in a convenient 4 fl. oz. bottle*



*Applying the Bumper and Trim Black over wax-stained side trim is a breeze with the built-in applicator*

Bumper and Trim Black. We were a little surprised by the phenomenal reaction we got to the product! Our customers told us that Bumper and Trim Black addresses a real need in the collision repair and especially in the detailing field -- covering up the wax buildup in textured plastic trim.

Textured plastic trim is used in many places on late model cars--door handles, rub strips, mirror housings, and window trim, just to name a few. This plastic trim seems to attract wax like a magnet, and it's almost impossible to scrub down into the texture to remove it. That's where the Bumper and Trim Black comes in. Bumper and Trim Black is not a silicone-based dressing, it is a polymer-based dye that permanently recolors the plastic.

Because Bumper and Trim Black is not silicone-based, it is totally

safe in the body shop. When applied, it dries completely, leaving no oily residue. It also protects against UV damage.

The main appeal of the Bumper and Trim Black is that it is so quick and easy to apply. Simply use the foam applicator tip that's built into the bottle to apply and spread the material onto the surface. Use a wet rag to remove any drips from surrounding paint or glass. Allow 15 to 20 minutes to allow Bumper and Trim Black to dry completely. No buffing is required to achieve an even, satin black finish.

Bumper and Trim Black can also be used to restore the finish on any black rubber, plastic, or vinyl surface, such as the following:

- |                     |                    |
|---------------------|--------------------|
| <i>Bumpers</i>      | <i>Bed Liners</i>  |
| <i>Moldings</i>     | <i>Kick Panels</i> |
| <i>Tires</i>        | <i>Carpets</i>     |
| <i>Hoses</i>        | <i>Mirrors</i>     |
| <i>Mud Guards</i>   | <i>Spoilers</i>    |
| <i>Wheel Wells</i>  | <i>Consoles</i>    |
| <i>Door Handles</i> | <i>Grilles</i>     |

The 4 fl. ounce bottle of Bumper and Trim Black can restore the trim on five to ten cars, often more, for only \$14.95 (suggested user price). Bumper and Trim Black is perfect for used car



*The New Beetle sports TPO bumper fascia front and rear. Repair with 5003R8 Uni-Weld Ribbon.*

lots and detail shops, when improving the appearance of a car can mean dollars in your pocket!

## New Beetle Bumpers are TPO

It's a sign of the times, how the old beetle of the flower-power generation has transformed itself to adapt to the 1990s through the use of plastics. Whereas the original beetle used nothing but steel on the car's exterior, the New Beetle sports TPO bumper covers front and rear. They are molded of DEXFLEX 162HF TPO developed by Solvay Engineered Polymers.

As with all TPOs, our 5003R8 Uni-Weld Ribbon is excellent for repairing gouges, holes, and tears in the New Beetle's bumper covers.

## Avloy In-Mold Decorating Debuts on GMC Sierra

You saw it in Plastic Pointers first! Last year we revealed some of the research that was going on by the OEMs to replace the painting process on TPO parts with a pigmented film that would be applied to the part in the

mold. The research was being done on Taurus bumpers, but for undisclosed reasons the Taurus project was cancelled.

Now GM has announced that it has selected an insert decorating technique for injection molded bumper caps on the new GMC Sierra full size pickup trucks. The TPO bumper caps are decorated by insert molding a pre-formed dry-paint-film laminate from Avery Dennison. This is the largest automotive application yet for the firm's Avloy paint-film laminates.

Avloy is a painted thin sheet of plastic, which is thermoformed and then placed in an injection mold to be backed up with resin. The Avloy

pre-painted insert saves the molder the cost and environmental concerns of in-house painting. Avloy reportedly also gives better adhesion and chip resistance than conventional paint on TPO. The body color-matched bumper caps are first vacuum formed by Autoform, Inc. of Ann Arbor, Michigan. They are then insert molded into bumpers by Carlisle Manufacturing of Crestline, Ohio.

In the research we reported on in our Summer 1998 issue (available on our website) concerning the repair of Avloy-coated bumpers, we found that refinishing was the most challenging part of the procedure. Because the bumper is made of standard TPO, the actual repair is very straightforward--just use the 5003R8 Uni-Weld Ribbon.

Refinishing is a challenge because the clearcoat film does not feather well on the underlying pigmented film layer. Care must be taken to fill in the "halo" defined by the edge of the clearcoat film. To do this, coat overall with several light coats of 3000 Light Gray Primer-Surfacer. Block sand, then apply more 3000 if necessary to fully fill the area. Afterwards, apply 3250 Super Sealer to hold down sand scratch swelling and to provide a solvent barrier, then color coat.



*The 1999 GMC Sierra uses an Avloy-coated TPO body-colored bumper insert.*