



Plastic Pointers

The Newsletter on Repairing & Refinishing Automotive Plastics

Fall 2001 / Issue Number 17

Damaged Taillight or Headlight Lens? No Problem with the NEW PlastiFix Lens Repair Kit!

Have you ever driven behind a car with a hole in its taillight, covered by a flapping piece of red transparent tape? Irritating, isn't it? (My apologies if that describes your own car!)

With the average cost of a new OEM replacement taillight being around \$130, it's no wonder people slap the tape on just to get by. Unfortunately, that's not only dangerous but illegal in some places that have safety inspections.

Here's a story from a woman in Dallas that broke my heart:

"I failed inspection because I've got a dime-sized hole in my taillight. They won't accept the lens repair tape. My husband just lost his job and we can't afford the \$300.00 it will cost to replace the light. I've only got two weeks to solve this problem or my car won't be legal to drive! Can you do anything to help me?!"

It broke my heart to tell her no because we **had** the product to help her (PlastiFix), but it just wasn't packaged in a way that was easy for her to use.

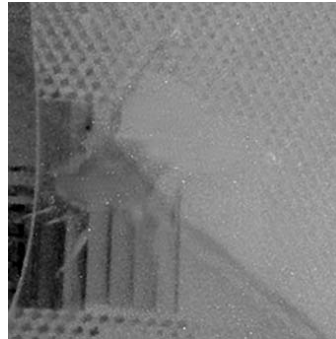
The employees here at Urethane Supply had a brainstorming session on how create a kit that would be as easy as possible to use. Thanks to contributions by **Brent Fuller** and **Mike Terrell**, we were on our way!

We're now proud to announce the availability of the PlastiFix Taillight

Lens Repair Kit (P/N 2505), **the first product that can perform permanent, nearly invisible repairs** on red taillight lenses!

In January, **amber** and **clear** will

fill up the hole. You don't even have to remove the lamp from the vehicle; the repair can be done vertically. Check out the instructions on Page 2 to see how it works.



The PlastiFix Taillight Lens Repair Kit can make permanent, nearly invisible repairs on any taillight or headlight lens.

When we introduced the product to a group of Nationwide Insurance adjusters in Nashville in early October, area manager **Larry Drolet** said that it could have been used just the previous week to repair the headlight and taillight of a car that had been deeply keyed from front to back. If it had been available, the PlastiFix Taillight Lens Repair Kit could have **saved the insurance company**

about \$300!

All of these benefits for only **\$14.95** suggested User Price! See for yourself why PlastiFix Taillight Lens Repair Kit is great for do-it-yourselfers and professionals alike for making permanent, nearly invisible repairs to holes, cracks, and scratches in taillight and headlight lenses.

*-Kurt Lammon
Sales Manager*

also be available for turn signal and headlight lenses. The headlight lens repair kit will be indispensable for fixing stone damage on the expensive composite headlights.

The Taillight Lens Repair Kit can be used to **fill holes up to 4" in diameter**. It can also be used to **fill cracks and deep scratches**.

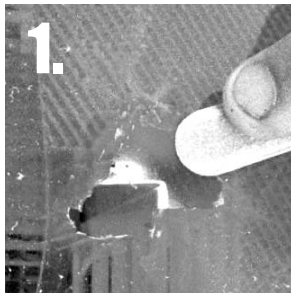
PlastiFix is fast, too. The repair itself only **takes about five to ten minutes**, and the repair material can be sanded and polished in about an hour.

The Taillight Repair Kit is very easy to use... the trickiest part is cutting a clear plastic sheet out to form a backing patch inside the hole. Once you've got that done, simply mix the powder with the liquid, stir, wait for it to get to the right consistency, then

Get Better Refinish Coat Adhesion with NEW Scuff Magic Prep Soap

One of the most common complaints about plastics repair is the

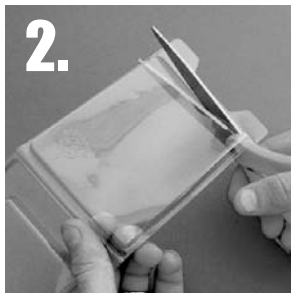
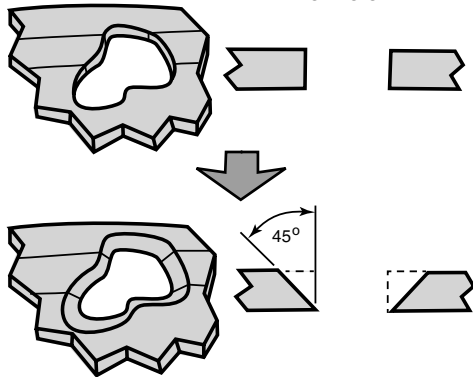
How the PlastiFix Taillight Repair Kit Works:



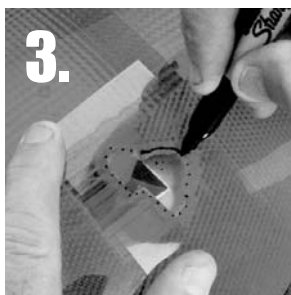
1. Using a Dremel tool, file, or emery board, bevel or v-groove the edges around the hole or crack as shown. Bevel at a 45 degree angle all the way through the plastic as shown below.

Top view of hole

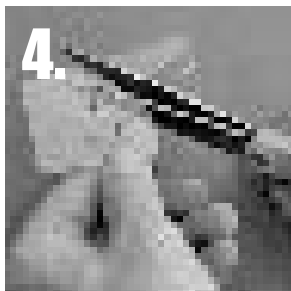
Cross-section of hole



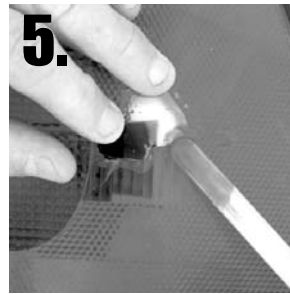
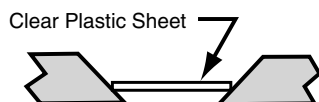
2. Cut a piece of the clear plastic case the kit is packaged in large enough to cover the hole.



3. Lay the sheet of clear plastic over the hole. Use a sharp black marker to trace out a piece that will fit inside the bevel but not fall through the hole. (Tip: make small dots first, then connect the dots)

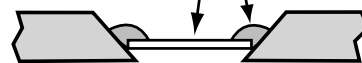


4. Cut the piece you traced out of the clear plastic sheet just inside the line you drew. Trim as necessary to fit flush down inside the bevel as shown below.

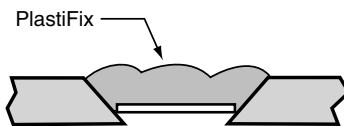


5. Use the PlastiFix "Mix Method" instructions shown on the back cover to mix the powder and liquid. When the PlastiFix just starts to thicken, hold the clear plastic sheet inside the hole with your finger and dab a few drops of PlastiFix around the outside edge to hold it in place. You may find it easier to first mix a small amount of PlastiFix for this step and a larger amount to fill the hole in the next step.

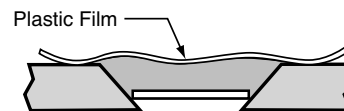
Clear Plastic Sheet PlastiFix



6. When the PlastiFix is just thick enough to stay in place on a vertical surface, spread it into the hole and fill it completely. If the PlastiFix is not thick enough, wait a few more seconds. It will slowly get thicker as time goes on.



7. Cover the hole with a plastic sheet cut from a Ziploc® bag to keep the PlastiFix from sagging while it sets up. Once you've covered it with the plastic film, use your fingers to smooth out the surface and remove any air bubbles.



When PlastiFix hardens, block sand with 180 grit paper. Fill any low spots with more PlastiFix. Finally sand with 180 grit and progress to 1500 grit paper, then polish.

This method works great on cracks and deep scratches, too!

adhesion of the refinish coating. Most of the time, poor refinish coat adhesion is the result of incomplete surface preparation. Contamination, especially oil, wax, or silicone, will cause you problems down the line.

Why not do the job right the first time by cleaning the surface thoroughly with our new 1020 Scuff Magic Plastic Prep Soap?

Scuff Magic cleans the surface and scuffs in one application, preparing bumpers, plastic parts or metal panels for repair, refinishing, or blending.

Non-silica abrasive puts fine scratches into the surface while it cleans for better refinish coat adhesion. Scuff Magic foams better than competitive products for better cleaning action. Finally, Scuff Magic comes packaged in a big 22 fl. oz. squeeze tube that provides great value.

When it comes to refinish coat adhesion, give yourself the edge with Scuff Magic!

Nanocomposite TPO Debuts on GM Vehicles

The 2002 Chevrolet Astro and GMC Safari vans are the first vehicles to use an advanced thermoplastic olefin nanocomposite on an exterior application, according to General Motors Corp.

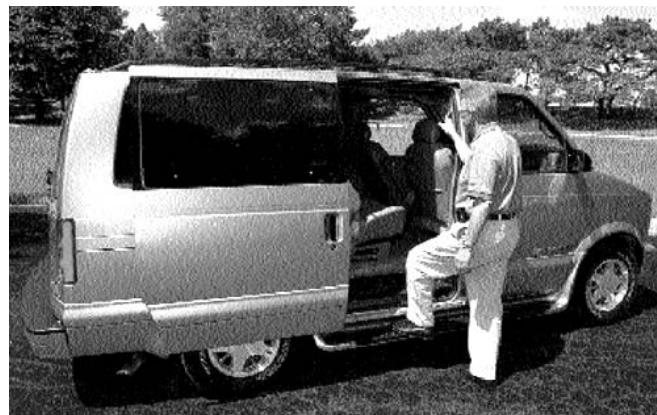
Basell, the world's largest producer of polypropylene resins provides

the resin and processing technology for the new nanocomposite.

The technology breakthrough deals with how the very thin flakes of a clay filler are peeled apart. "The greater the extent of exfoliation, the thinner the particles are, and a greater surface area is available for interaction with the polymer matrix, resulting in better performance," says Alan Taub, GM Executive Director of R&D. When properly exfoliated, the clay particles have a thickness of about 1 nm (nanometer) thick and 100-1000 nm long.

When compared to a conventional TPO, the new nanocomposites can provide up to a 20% weight savings, a similar stiffness, and more ductile strength at low temperatures. The new nanocomposite is also TPO cost-equivalent, has a class A surface, is more recyclable (because of less additive material), and does not require new tooling.

Other parts are being looked at for a TPO-based nanocomposite include body cladding and sail panels. "We're studying interiors, and we see no road-



The running boards on the 2002 GMC Safari represents a first for the exterior application of a TPO-based nanocomposite.

blocks to getting there," said Taub.

- *Automotive Engineering Int'l*
October 2001

Polycarbonate Cruises into Car Windows

Plastic will make its way into more automotive window systems during the coming months and years.

The question is whether the material will be in the form of a thin barrier married to glass in the side and rear windows of a vehicle, or if those windows will switch to a coated polycarbonate.

Exatec LLC, a joint venture between Bayer Corp. and GE Plastics, is making a multi-million dollar investment to help make PC windows a commercially viable alternative.

The company is installing plasma deposition technology at its Wixom, MI headquarters, which it will use to coat PC with an abrasion-resistant layer necessary for commercialization.

Interest in PC is keen because it weighs half as much as a typical glass window.

Cutting pounds improves gas mileage and also helps lower the center of gravity in SUVs and minivans. A lower CG helps reduce the potential of a roll-over crash. About 90% of all fatalities in from SUV crashes were linked to rollovers.

Exatec already has a test vehicle using PC everywhere but the windshield. The switch reduced the weight of a Dodge Caravan by 44 pounds.

Polycarbonate also offers additional protection during a crash, because the material will not shatter--unlike tempered safety glass--keeping crash victims inside the vehicle.

Polycarbonate offers other advantages over laminated glass. PC windows are not only lighter, but allows molders to add brackets, make complex shapes, and add color to spice up a vehicle's appearance.

- source: *Plastics News*
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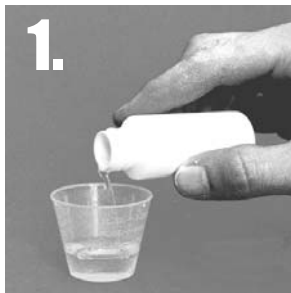
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TECH TIP

Easier Method for Applying PlastiFix

Lots of people who have tried the PlastiFix Rigid Plastic Repair Kit like what the product can do, but don't like the needle dropper application method. Here's an easier way--the "Mix Method." Use this method for applying material over a fairly large area.



1. Pour PlastiFix Liquid into cup. Volume of liquid used can be adjusted to suit total amount of PlastiFix needed and working time required. The more liquid used, the longer the working time. If this is your first time to use PlastiFix, try 5 ml of liquid to start with.



2. Pour PlastiFix powder into liquid. A 2:1 liquid-to-powder ratio is good to start with. For example, if you used 5 ml of liquid, pour in powder until the level is up to the 7.5 ml line. Don't worry about making the measurements exact.



3. Mix the powder and liquid together until uniform. As time goes on, the mixture will slowly get thicker. Wait until the PlastiFix reaches the consistency you desire. Do not stir excessively as this will introduce air bubbles into the mixture. A thicker adhesive is better for applying to vertical surfaces; thinner adhesive is better for pouring onto horizontal surfaces.

You'll get better results if you use more liquid than powder. A good ratio is **2 to 3 times more liquid than powder**. More liquid will give you more working time and fewer air bubbles. However, don't go over 3 parts liquid to 1 part powder, because the adhesive may never fully polymerize.

For optimum clarity and freedom from air bubbles, the needle dropper method is still preferred. The Mix Method is faster, but it does result in more air bubbles from both the mixing process and from the heat caused by the exothermic polymerization reaction.