

Fiberglass Maintenance and Repair **for Main Street Pedicabs**

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Introduction

Repairing your Main Street fiberglass body is a simple and easy process. It is important to have a brief understanding of the manufacturing process of the fiberglass body so that you can better understand the nature of these materials and how to use them to repair your cab.

Your cab body was created with fiberglass and a two part-polyester resin by a process known as “Fiberglass spray lay-up process.” This is an open-molding composites fabrication process where resin and reinforcements are sprayed onto a reusable mold. Before the fiberglass is sprayed a gel coat is applied to the mold. Gel coats are modified resins which are applied to moulds in the liquid state. This is what gives the cab its color and finish on the visible surface of the cab. The gel coat thickness across the cab usually ranges from .05” to 1/16”. The gel coat of your cab is the only visible barrier separating you from the raw fiberglass composite that the cab is made up of. This is important to remember when you start repairing the damaged cab.

It is important to note that most fiberglass, gel coat, and hardware repairs can be easily implemented by following these instructions. The processes you will read about are not hard to execute, but they are time consuming. Skipping steps or using short cuts will, in most cases, prolong the repair time. This instructional is to be used as a guide to help you repair your cab and bring back the visual aesthetics. Every repair situation is unique, so ultimately it is up to you to decide which is the most efficient step to start with for repairing any damage.

Surface Scratches

Shallow surface scratches can easily be repaired with sanding and buffing methods. If any of the gel coat is chipped off or gouged out refer to the “Nicks and Dents” chapter. Shallow surface scratches can usually be sanded out of the gel coat without hitting the raw fiberglass body. It is important to remember that

the gel coat thickness on the cab varies and can be very thin in some sections so always make sure the scratch or dent in your cab is not hitting raw fiberglass.

Other wise follow these steps to remove surface scratches from your cab:

1. Begin wet sanding with a 320 to 400 grit sand paper, depending on the depth of the surface scratch. Sand down the scratch and limit the amount of sanding you do outside the damaged area. You don't want to create extra work for yourself.
2. After removing the scratch, change to wet sanding with the finer sand grit paper until reaching a 1000 grit. After wet sanding with a 400 grit move to a 600 grit and work the surface until the 400 grit scratches are removed, etc. This process, depending on the severity of the repair, can be extremely time consuming. These steps are important to follow because skipping steps will not short cut you to the desired result.
3. Once you've finished smoothing out the surface with the 1000 grit, wipe all excess water away. Use a hand drill with a buffing wheel and a polishing compound to bring back the gel coat's shine. If the polishing compound you're using isn't taking out the 1000 grit scratches move to using a heavier polish compound. Then use the finer shine polish to finish.
4. Wax can be helpful with filling in the finer scratches on the surface and gives the cab a nice shine.

Surface Nicks and Dents

When the gel coat is chipped or gouged out of the surface repair can get a little more involved. Gel coat can be obtained through our website or by calling us directly at 303-295-3822. Once you've obtained the coordinating color to your cab, you can begin your repair. Nicks and dents should be surface repair only. For repairing holes any larger than a pencil's diameter see page 4, or gel coat chips involving hardware see page 5. Repair surface defects:

1. You have to be the judge of how much gel coat pigment you need to fill the crater in the gel coat surface. Add about 5 drops of the resin hardener per one ounce (about 30 cc) of gel coat pigment you will use to repair the surface. Mix extremely well.
2. Apply the gel coat to the damage so that the crater is filled and the gel coat pigment is bulging . For ¼” size holes first stuff tissue as a backer inside to clog the hole to prevent leaking. Gravity can be a large factor due to the gel coat’s viscosity in it’s workable state. That given, you sometimes have to find your own means for preparing your cab’s orientation for surface repair involving gel coat pigment. It is OK to tip your pedicab on its side.
3. Sometimes filling the defect requires multiple applications. After the gel coat has slightly hardened (which takes about 30 – 45 minutes) more gel coat can be added to continue to fill the damaged space.
4. The gel coat mixture takes about a 1 ½ - 2 hours to get to a workable state. Before shaping back gel coat to match the surface consistency, first decide the best way to start sanding. For instance if you fill smaller scratches with gel coat, one technique is to use some sort of an appropriately shaped spackle to spread the gel coat pigment across the scratches. After the gel coat cures, hand sand with a 320 grit sand paper to smooth the surface. Then move on to wet sand with a 400 and finish the surface using the directions on page 2.
5. After filling a defect with gel coat the surface is inconsistent. To reshape the gel coat back to the surface consistency of your cab it is best to use an appropriately sized sanding block. After your surface is smooth see Page 2 for finishing out gel coat.