

GEL COAT REPAIR

Fiberglass repairs fall into two classes. One is gel coat repair. The other is fiberglass structure repair. They both require different levels of understanding, and different tools and supplies. Structural damage is an actual break in the fiberglass such as a crack with a visible gap or a delamination in the layers of fiberglass. Gel coat damage can appear in several ways; rubbed or discolored areas, chips, straight line (hair line) cracks, impact circular cracks that radiate out like a spider web, and mold marks. Mold marks may look like real cracks because they result from damage to the pools mold which has mirrored the damaged look to the pool. Mold marks that appear like cracks do not have a dark hair line as real cracks do, and they can be sanded away then buffed to the original shine. If you are not sure, wipe the area with acetone to remove any dirt that may be in the crack or mold mark. If you are still not sure, sand the apparent crack with 320 grit sand paper. If the crack goes away, it was a mold mark.



4" structural crack

12" stress crack

Marine gel coat, for boats and fiberglass pools, is specifically designed for under water applications. Using the wrong type gel coat can result in failure within a matter of months. To be safe, it is a good idea to order gel coat directly from the pools manufacturer. If you buy gel coat, be sure that it is marine grade for under water use.

If the gel coat appears rubbed or discolored, try wiping the area with acetone on a cotton rag. It is surprising how well this works. If wiping the area does not remove the blemish and there is no indication that the fiberglass is showing through, then sanding and buffing should remove the damage.

Gel coat is applied considerably thicker than paint. In most cases it is thicker than a match pack cover, so it will take a lot to sand through to the fiberglass. Sand the blemish with 320 grit sand paper. Sand the area beyond the damage so that you do not leave an indentation. When the blemish disappears, re sand the area with 600 grit sand paper to remove the 320 scratches. Use a heavy cut polishing compound and buff the area by hand or with a low speed buffer. This will restore the original shiny finish.

For deep gouges or chips in the gel coat, sand the scratch or chip plus $\frac{1}{4}$ " around the damage with 180 grit sand paper. Wipe the area clean with acetone. Pour a small amount of gel coat into a container about the size of a large mouth bottle cap. Add 6 or 7 drops of mekp (methyl ethyl keytone peroxide), not to be confused with methyl ethyl keytone, and stir thoroughly. Dip a small artist's paint brush into the gel coat then dab the gel coat onto the scratch or chip. Continue this process until the damaged area is filled and slightly over filled

with gel coat. Allow a small amount of the gel coat to spread on to the undamaged area that has been sanded. You have about 10 to 15 minutes of working time before the gel coat starts setting up. Allow the gel coat to cure for about twenty to thirty minutes. When air temperatures are below 70 degrees, cure time increases. Although the gel coat is cured, the surface may remain sticky for a long time. Wipe the repair with acetone. Use 100 grit sand paper to sand down the raised portion of the repair. Then, as described for repairing blemishes, complete the repair.

Hair line cracks should not be gel coated over, as they may reappear in time. Small areas of stress cracking can be repaired if the cracks are made wide enough for gel coat to penetrate (about 1/16"). This can be done with a dermal tool or rotozip and a steady hand. Widen each crack, and then proceed with the repair as if it were gouge or a chip.

If you wish to spray gel coat over a small area, it can be done with an aerosol jar called a "pre-val" (brand name). Use 220 grit paper and sand the area to be sprayed plus about 1 inch beyond. This will allow you to blend and bond the new gel coat into the old when you do your final sanding. It might be a good idea to mask the area around the spray to reduce over spray clean up. Pour the desired amount of gel coat into the plastic pre-val jar and add just enough mek (methyl ethyl keyton, not methyl ethyl keyton peroxide) to allow the mixture to atomize when sprayed (almost water thin). Try a sample spray to be sure it sprays well. **Too much mek can degrade the gel coat.** Mix in the correct amount of mekp (methyl ethyl keyton peroxide), and then apply at least 4 coats. Wait about 30 seconds between coats. Be sure the surface appears wet as you spray each coat. Allow the gel coat to cure (about 30 minutes at 70degrees), then, when you are sure it is hard, wipe it down with acetone to remove the sticky surface. Sand the area, as described above, to blend in with the original finish then buff if desired.

REPAIR SUPPLIES

Item

Where to buy

acetone, sand paper (100,320,220,600 grit), 2"natural bristle brush, artist brush, cotton rags, paper towels small stir sticks, small pail, m.e.k, etc.

Home or hardware store

mekp., heavy cut polishing compound, pre-val

auto paint store
marine supply or
fiberglass supply

gel coat

pool mfg.

MEKP MIX RATIO

Mekp.		Gel coat
20 cc	for	32 oz
10 cc	for	16 oz
5 cc	for	8 oz
2.5 cc	for	4 oz
1 cc	for	2 oz
10 drops	for	1 oz