

Make It Like New Again

Fixing those gelcoat boo-boos yourself.

By ARIEL CABRERA

The majority of chips and scratches in your boat's outer skin or gelcoat cause no structural issues, but as they accumulate your "new" boat starts to look old and beat up. You can get rid of minor scratches with nothing more than a power buffer and some rubbing compound, but for the bigger dings, you need a gelcoat repair kit and a bit of know-how. Here are the basics:

First is the issue of getting a color match. Best bet is to polish the hull lightly to get rid of oxidation and reveal the true color. Then remove a hatch lid or other component that has the color you want, take this to a fiberglass repair shop, and have them computer-match that color with some gelcoat resin.

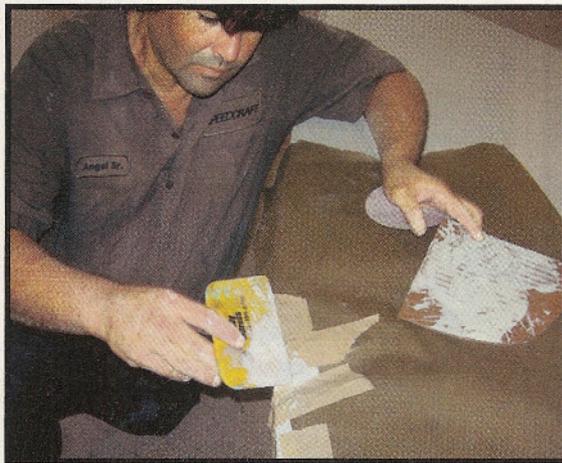
To begin a repair, wash the damaged area thoroughly with soap, water and a scrub brush; you want to get rid of all oil, wax and algae. Then, map out the area you are going to repair; follow out any cracks to their smallest extremities, because if you don't, the crack is likely to show up again after you run the boat.

Remove any cracked gelcoat and underlying broken glass fibers; best tool for this is one of the mini-grinders like those made by Dremel. Careful, these things cut fiberglass very fast. Use a cone-shaped grinding wheel to clean and shape the damaged area until you get down to solid, resin-filled fiberglass underneath—putting gel over broken fiberglass fibers won't last.

Once you have the debris cut away, you'll need to feather out the edges to allow good adhesion and also to blend the repair into your existing finish. Use 80 grit paper first, working down to progressively finer grits. Finish with 220 grit wet or dry, wet-sanded until you have an extremely smooth surface. Wipe off the sanded area with water,

and then with acetone; it's a near-universal solvent that gets rid of any residue and creates a clean surface to which the gel can bond (careful, it's extremely flammable). You also need the acetone to wash out your spray gear, which you must do immediately after you finish spraying the repair or it will freeze inside the gun.

Use masking tape to cover anything you don't want to get coated with the new gelcoat. Push the tape down firmly with a thumbnail to assure you don't get resin seeping underneath.



Professional refinisher fills a deep gouge in a small fishing boat. For minor dings, you might tackle the job yourself.

Gelcoat repair kits are available from a number of sources; we used one from West System (www.westsystem.com). (For deeper cracks or gouges, you may need to fill the hole with a resin paste. Let it set, then sand it smooth and slightly below surface level before beginning the gelcoat repair.)

First step is to color match the patch. Mix a quarter-size batch of gel, catalyst and pigment and spread it on the repaired area near the edge so you can see how it matches your existing color. Let it dry thoroughly; wet gelcoat color can vary considerably from cured color.

Now mix a working batch. West System recommends mixing about two-thirds of the amount you need to fill the hole. You may need to add a thickener like Cavasil to the mix if the repair is on a vertical surface. Otherwise, it may run. Add exactly the amount of catalyzer recommended for the

amount of gelcoat; too little and it may not set completely, too much and it sets too soon, maybe before you've even finished spraying.

Pour the catalyzed mix into a spray gun and adjust the spray by testing it on cardboard set at the same angle as the portion of the boat part you are repairing. You have to move quickly, and the warmer the air temperature, the faster the material will set—a cool day in a shaded area is best.

Now spray on several light coats, gradually filling over the crack. You'll eventually want 15- to 20-milimeter thickness in this part of the job. Remember to overfill the hole, so that you can sand off the excess and bring it all back to surface level.

After the working coats have set, mix another batch of gel, this one with a bit less pigment, to create a transparent effect allowing the main surface to show through; this will make the finished job look more like the original gelcoat. Spray several more coats with this material, building up over the repair, feathering off the spray all around the outside.

Allow the gel to dry at least 24 hours. Don't rush this step, because even though it feels hard, it won't be dry enough to sand.

Now use 320 wet or dry sandpaper, wetted, to begin smoothing and feathering the newly sprayed gel into the old. Dip the paper frequently to wash away the accumulated grit. Once the surface is flat, switch to 600 grit wet or dry and smooth in the outside edges of the patch. And lastly, use 1200 grit wet or dry to polish the whole surface.

Use a white, medium cut rubbing compound on a large buffer with a lambs-wool muff to bring out the shine. This is an important step. Keep the buffer on low speed, 1,500 rpm or less, and work on the surface until it looks as smooth as the rest of the boat. Use very little pressure, or you may cut through the repair.

And finally, wax the repaired area and the surrounding surface. Hopefully, when all is done, your repair will disappear into the finish—just like it never even happened. ➔