



Prepping For Bottom Paint

Paul Esterle has been building or repairing watercraft, of all descriptions, for longer than he cares to admit, from hovercraft to power and sailboats. Paul specializes in boat improvement and repair projects utilizing wood, epoxy, and fiberglass. If you have any questions about your boat project, contact Paul at pesterle@comcast.net.

by Paul W. Esterle

It's not too soon to start planning for this year's boating season. To many of us, that means new bottom paint. One of the keys to a long-lasting bottom job is proper prep work. The extent of that prep work depends on the current state of the bottom, what has gone on before, and what type of paint you'll be using this time.

Paint Types

First, a little more about bottom paints. Stripping off all the marketing hype, there are basically two types of bottom paint: hard and soft. Both contain materials that discourage marine organisms from finding a happy home on the bottom of your boat.

In hard paints, those materials slowly leach out over the life of the paint. At the end of the paint's active life, the anti-fouling agents are gone, but the paint that contained them is still present on your hull. Soft paints work by slowly wearing away or ablating (hence ablativ style paints). When the active ingredients are gone, so is the paint.

You can apply additional coats of hard paint over hard paint and soft paint over soft paint. You also can apply soft paint over hard paint, but you cannot apply hard paint over soft paint. This is a gross simplification of paint compatibility. The paint manufacturers all have detailed charts of what paints are compatible with what. Read their literature.

Painting over Existing Paint

If the existing bottom paint is in good condition, you may want to just recoat the bottom with a maintenance coat. Prep the hull by pressure washing the bottom. Do this or have it done when the boat is first pulled out and any bottom slime is still soft. Waiting until it has dried and hardened means increased work to clean the bottom. Scrape off any loose paint and then wipe down the bottom with the recommended thinner to remove any traces of grease or oil. Then sand the bottom lightly with 80 grit sandpaper. Remove all traces of sanding residue. If there are any bare patches, coat them with bottom paint. Apply the anti-fouling paint and let dry. Re-launch within the specified times for the type of paint you use.

Applying Ablative Paints

As mentioned above, ablativ paints work by wearing away. Most paint manufacturers suggest applying three coats of ablativ paint the first time this type of paint is used. The first coat applied should be a different color than the last two, say black over red. That way, when patches of red start appearing, you know it's time to reapply bottom paint.

Unfortunately, ablativ paint doesn't wear away uniformly. Areas of higher water flow wear away first, while other areas where water flow is slow or stagnant remain in good condition. Recoat those areas where the base coat color is appearing before recoating the entire bottom. That will build up the paint film to an effective level. In fact, it won't hurt to give those areas a second or third coat because that is the area where the wear occurs.

Painting New Boats

New boats or boats that never have had bottom

paint applied present a little more complex problem. If new, the surfaces will have traces of the mold release wax remaining from the building process. Older, unpainted bottoms still will retain traces of this wax as well as possible dirt, grease and oil contamination. This all has to be removed for an effective bottom job.

Start by thoroughly washing the bottom with detergent and water and then rinsing well. Most manufacturers have a solvent wash or surface prep liquid. Wipe down the hull with the suggested product and follow up with a second wipe down with the recommended thinner for the bottom paint you'll be applying.

At this point the gel coat on the bottom of your boat will be shiny but clean. Now you have to remove that shine. Sand the bottom with 80 grit sandpaper until you have a uniform satin or matte surface. If you lightly spray water on the surface, it shouldn't bead up. If it does, keep on sanding.

Clean off the sanded surface with solvent wash or thinner (use the products your paint manufacturer sug-



The opposite side, several minutes work with a sandblaster.

icity of those old paints, it's a good thing we don't do that any more.

Scraping and/or sanding are other paint removal choices. A good sharp carbide scraper can make quick (relatively speaking) work of getting old bottom paint off. However, careless or improper use of a scraper can gouge the gel coat; round over the corners of the scraper so this doesn't happen. Less desirable is sanding off the old paint. If you choose this method, be sure to use proper respirators and a vacuum on the sander.

Another option is to use a paint stripper to soften the paint and scrapers to remove it from the hull. Some strippers simply are brushed on and left to do their work. Others require placing sheets of a special paper over the wet paint stripper. Once the paint has softened, it can be scraped off with a carbide scraper.

In any of these methods, safety and pollution control are required. Use proper respirators, eye protection, "bunny" suits and gloves. Place tarps under the boat to contain scrapings and dust and then properly dispose of the remains.

Editor's Note: Always check with your marina or boatyard operator to comply with environmental regulations governing bottom paint removal and disposal.

Another popular option is abrasively blasting the paint off the hull. An abrasive material is forced out of a nozzle with high pressure air. The abrasive's striking the hull wears away the paint, leaving a matte surface. The most common abrasive medium is sand. In the hands of an experienced operator, a sandblaster is a precision instrument, removing multiple layers of paint while leaving the gel coat intact and ready for paint.

Another blasting option is to use common bicarbonate of soda (baking soda) for the medium instead of sand. Baking soda is much less aggressive than sand and easier on the underlying gel coat. Most soda blasters have mobile outfits that will come to your location and do the work.

An even newer process is dry ice blasting. In this process, pellets of dry ice are used as the abrasive medium. The impact of the very cold dry ice pellets provides a thermal shock to the painted surface that aids in breaking up and removing the old finish. Best of all, the blasting medium sublimates into carbon dioxide gas, leaving only the paint residue to clean up.

The end result of any of these procedures is a clean hull with a matte finish ready for the bottom painting process. In extreme cases, the hull is ready for barrier coating or blister repair – but that's a whole different article.



A weeks worth of work with paint stripper and scrapers.

gests) and let dry. Apply the bottom paint of your choice. Many boaters report that the first year's paint doesn't adhere well and that the surface has to "age" for good paint retention. Others counter that the surface prep was simply inadequate or poorly done.

Changing Paint Types

There are many reasons for changing paint type. The most common one is changing locations. The best way to choose a bottom paint is to talk to fellow boaters in your boating area or marina to find out what works for them. Applying ablativ paint over a sound base of hard paint usually presents no problems.

You do not want to use a hard paint over a soft paint; it usually sloughs off in a relatively short time. Some paint makers advertise a primer or "tie coat" that can be applied over such paint, but the best course of action remains removing all the old paint and then applying the new paint.

Removing the Old Paint

Now comes the fun - removing the old bottom paint. In the old days of wooden boats, this often was done with blow torches and scrapers (how many remember the old gasoline blowtorches?). Given the tox-