

Fiberglass Deck Repair—Part II

Creating a non-skid deck

By Bruce Niederer

This racing season onboard Triple Threat has been filled with the usual mix of tedium, laughs, and excitement. It's a good thing when the exciting part is due to close racing and fast downwind surfing—it's a bad thing if the excitement occurs when the foredeck crew nearly goes overboard because the deck is wet and the non-skid has the texture of a slip n' slide! I'm happy to report no instances of skidding off the foredeck this year, as there had been in years past, because this year the non-skid was brand new. (Author's note: Any foredeck incident was due to crew error. I can say that with authority because as skipper/helmsman, I never have to leave the cockpit and so am perfectly positioned to tell everyone else what they are doing WRONG!)

In Epoxyworks 19, I detailed the process of removing all the hardware and repairing the areas where I discovered rotten core. The last photo in Part I showed the deck after repairs were completed and the deck had been painted with 2 coats of primer in preparation for the next phase of the project: creating a non-skid deck. I'll pick up the details at this point.

In Part I, we left the repaired deck with two coats of primer, ready for finish paint and non-skid.



We prepared the deck for sanding by first wiping down the entire deck surface with DuPont Prep-sol™ 3919S solvent using plain white paper towels. This product removes organic contaminants, silicones, and waxes. It's always a good idea to remove such contaminants before sanding instead of relying on sanding alone to do the job. Sanding can grind contaminants into the sanded surface, which may be a problem with future bonding of epoxy and paints. (See Avoiding surface contamination, page 10.) We sanded the deck using 80-grit alumi-

num oxide sanding discs on a random orbital sander. The goal was not to sand off all the worn non-skid profile but only to make a relatively uniform surface to cover with primer. We used a shop vacuum to clean the majority of sanding dust followed by a wipe down with damp paper towels. This is typical of how we removed sanding dust each time it was necessary. It is important to work clean once you get to this stage, so we kept a clean damp sponge to wipe our shoes each time we stepped on board. We also kept dedicated boat shoes in the boathouse to wear while working.

We chose US Paint™ Epoxy Primer White Base as the primer. This is a 1:1 system, which is easily mixed and applied with a WEST SYSTEM® 800 Foam Roller Cover and foam brushes, when used with the proper converter. With two people working side by side from bow to stern, tipping as we went, we applied the first coat of primer in about 45 minutes. This coat was allowed to dry 24 hours. The next day, we prepared the entire primed surface using an abrasive pad on most areas and 220-grit sandpaper on any area that needed a bit more attention. We applied a second coat in the same way as the first and allowed it to cure until the next weekend.

The final coat of cured primer was sanded with 220-grit sandpaper and the deck cleaned in typical fashion to prepare the surface for a topcoat. We chose US Paint products for this application as well—Awlgrip™ Matterhorn white urethane paint, a flattening agent for urethane topcoats, T0031 Reducer, and an Awlcat™ brushing topcoat converter. Let me briefly discuss these materials and why they were chosen.

Awlgrip products are well known to be a quality line of products. Their urethane paints provide excellent wear/durability characteristics including UV radiation stability. Urethane paints are generally superior at UV resistance than epoxy paints. Epoxy paints used in the automotive industry, for instance, are over-coated with a clear coating that provides UV protection for the colored layers below. Matterhorn white is an off-white color with a slight silver/gray tint to it. Without any tint,

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The cockpit after priming with US Paint™ epoxy primer white base, applied with an 800 foam roller.

the reflection from a bright white deck would be blinding on a sunny day. Most whites have some color of tint added to cut down on the brightness and to complement surrounding colors like the hull color or stripes. Additionally, we used a flattener to help cut down on glare. Flatteners contain a solvent base similar to the paint system being used that is heavily loaded with silica crystals. When properly shaken, it has a consistency much like the thick Cream of Wheat™ your mother used to force you to eat. The brushing topcoat converter differs from the converter used for spray applications. The spray converter yields a cure time too fast for brushing or rolling, making it quite difficult to maintain a wet edge to feather into. For the smooth coats only, we used T0031 reducer, which extends the coverage and helps prevent runs and orange peels by allowing thin, even coats to be applied. All portions were mixed by volume as follows: 2 parts Matterhorn white, 1 part flattener, 1 part converter, 1 part reducer. We applied two coats over two days just as we had applied the primer and allowed the paint to cure until the following weekend.

The first job when we returned the next weekend was to tape off all the areas we wanted to remain smooth. Then we sanded all the surfaces that were to be non-skid with 220-grit paper or an abrasive pad and cleaned in the usual manner. To create the non-skid, we prepared the same paint mixture as for the smooth coats, but without the reducer. Then we added 406 Colloidal Silica until the paint was the thickness of drywall mud. This mixture was spread out on the deck with an 809 Notched Spreader using the middle-sized, " notches. This was then rolled through lightly, using a medium nap roller cover, to create a texture like stucco. Two of us, working side by side like before, were able to apply the

non-skid in a little more than an hour. The paint was allowed to cure overnight before the tape was removed, and then allowed to cure until the following weekend before anything else was done.

At this point the repairs were done, the deck was painted and new non-skid applied, so all that remained was to re-mount the hardware and the job was complete. This actually took several weeks to complete and was a pain in the...back! All kidding aside, I wrote this article in hopes of encouraging others not to shy away from undertaking a project of this scope.

Materials for the entire project cost approximately \$2,800, which includes \$1,000 for the deck paint, primer, and additives; \$975 for new aluminum rails; \$200 in gelcoat for the transom; \$200 in paint for the mast; \$250 in hardware and miscellaneous supplies; and \$175 for WEST SYSTEM® products including fiberglass. Given all that we accomplished working weekends only over 4½ months, we saved easily twice that amount in labor costs. As you might gather from the photo of the finished deck and mast, the deck repair project was well worth the effort. ■



Above—The chainplates, isolated from the core material with an annulus of thickened epoxy, before and after fairing, barrier coating and priming.



Left and below—The finished project. After two coats of Awlgrip™ Matterhorn white urethane, we masked off the areas we wanted to remain smooth. We mixed and applied a third coat thickened with 406 Filler to create the non-skid texture.

