Pettit Technical Bulletin

Bottom Painting Bare Fiberglass

There are four methods used to apply antifouling paint to bare fiberglass hulls. One of the most important parts to each system is to be sure the bottom is completely cleaned and de-waxed prior to sanding or applying any products. All bare fiberglass, regardless of age, should be thoroughly cleaned with 92 Bio-Blue Hull Surface Prep or de-waxed several times with Pettit D-95 Dewaxer or 120 Brushing Thinner. When using 92 Bio-Blue Hull Surface Prep, pour out some of the 92 Bio-Blue into a roller pan, then using a short nap roller (3/16 inch maximum) apply the 92 Bio-Blue Hull Surface Prep to an area approximately 5 feet by 5 feet. Once the area has been covered with the Bio-Blue, scrub the surface by hand in a circular motion using a fine to medium Scotch-Brite pad. Wipe the area with a wet sponge until all of the 92 Bio-Blue and scrubbing residue has been completely removed from the surface. Rinse sponge and change rinse water often. Where feasible, hose off the surface residue and residual 92 Bio-Blue with fresh water and let dry. When using D-95 Dewaxer or 120 Brushing Thinner, apply in a circular motion, applying a liberal wet coat. Wipe dry with a clean rag to remove contaminants. Change applicator and cleaning rags often. Follow all directions on product label closely. Modern boat hulls constructed of Vinylester resins generally retain more mold release waxes, therefore, they should be cleaned and de-waxed at least four times prior to applying primer coat.

Application Methods:

I. Sanding Method

II. High Build Epoxy Primer Method

III. Sandless Method:

IV. Easy 2-Step Sandless Method

I. Sanding Method:

Thoroughly clean and de-wax the hull as described above with 92 Bio-Blue Hull Surface Prep, D-95 Dewaxer, or 120 Brushing Thinner. Sand thoroughly with 80 grit sandpaper to a dull, frosty finish and rewash the sanded surface with 120 Brushing Thinner to remove sanding residue. Careful observation of the above instructions will help ensure long term adhesion of this and subsequent years' antifouling paint. Apply at least two coats of antifouling paint.

II. High Build Epoxy Primer Method:

This method is highly recommended where blister protection is a concern or on boats that have recently been stripped by a blasting method. Pettit Protect High Build Epoxy Primer is a heavy duty, two component epoxy coating for use where maximum resistance to fresh or salt water is required. It reduces water absorption in fiberglass hulls, making it an excellent choice for the prevention and repair of osmotic blisters. Pettit Protect's high-solids formula allows for quicker and easier application with fewer coats necessary for effective protection.

Thoroughly clean and de-wax the hull as described above with 92 Bio-Blue Hull Surface Prep, D-95 Dewaxer, or 120 Brushing Thinner. Sand the surface thoroughly with 60 grit sandpaper and rewash with 120 Brushing Thinner to remove sanding residue. Apply at least three coats of Pettit Protect High Build Epoxy Primer following the application and recoat instructions. Total dry film thickness is more important than the actual number of coats applied. On metal and fiberglass, if 12 mils total DFT is not achieved with three coats, additional coats are recommended until 12 mils total DFT is achieved. Finish with two coats of Pettit antifouling paint. For detailed application instructions on Pettit's High Build Epoxy Primer see Technical Bulletin *TB1000 Gelcoat Blister Repair and Prevention.*

A single coat of Pettit Protect High Build Epoxy Primer can also be used in place of Pettit 6998 Skip-Sand Primer or 6999 Sandless Primer for the Sandless Method providing the hull has been thoroughly cleaned and prepped using 92 Bio-Blue and a Scotch-Brite pad.

III. Sandless Method:

To eliminate the sanding operation, thoroughly clean and de-wax the hull as described above with 92 Bio-Blue Hull Surface Prep, D-95 Dewaxer, or 120 Brushing Thinner. Then apply one thin coat of Pettit 6998 Skip-Sand Primer or 6999 Sandless Primer. Use a 3/16" or less nap when applying by roller, a 1/8" nap roller is recommended. These rollers can be found in mohair type (usually called "adhesive applicators") or solvent resistant foam type. Consult the primer label for complete application and antifouling top coating instructions. Let dry in accordance with the primer labels and apply bottom paint. Both Pettit 6998 Skip Sand Primer and 6999 Sandless Primer are pre-treatment primers designed to adhere tenaciously to un-sanded and de-waxed fiberglass gelcoat. When properly top coated with antifouling paint, the primers and antifouling will bond together strongly, resulting in a finish with excellent overall adhesion. These primers are ideal for use over vinyl ester gelcoats, where sanding of the gelcoat may void osmotic blister warranties. They may be used over conventional gelcoats as well, and as a tie-coat between two-part epoxy primers and antifouling paints. The main difference between these two primers is the time necessary between recoating. Pettit 6998 Skip Sand Primer has a fairly large time window when antifouling paint must be applied. Antifouling paint can be applied in as little as a few hours or up to 7 days making it an ideal primer to use when the antifouling application is not rushed and can be performed over two or more days. Pettit 6999 Sandless Primer has a short window where antifouling paint must be applied. As humidity, ventilation, film thickness, as well as temperature can all affect the rate at which the 6999 Sandless Primer cures this primer must be physically checked to determine when to apply the antifouling paint. Pettit 6999 Sandless Primer is ideal for use when antifouling application must be performed quickly, usually within one day. A detailed window describing approximate recoat times can be found on the following page.

A single coat of Pettit Protect High Build Epoxy Primer can also be used in place of Pettit 6998 Skip-Sand Primer or 6999 Sandless Primer for the Sandless Method providing the hull has been thoroughly cleaned and prepped using 92 Bio-Blue and a Scoth-brite pad.

IV. Easy 2-Step Sandless Method

Thoroughly clean and prep hull using 92 Bio-Blue and a Scoth-brite pad as described above. Wipe surface to remove any excess moisture and apply one of the Hydrocoat antifouling paints.

Tips for Using Sandless Primers

Counting the minutes or hours after the 6999 Sandless Primer has been applied is not nearly as important as actually checking the paint film in determining when the Sandless Primer is ready for top coating with antifouling paint. To check the 6999 Sandless Primer, touch it with your fingertip using moderate pressure. If it feels wet or you get paint transfer to your fingertip, it is still too wet to topcoat. Depending on the Pettit antifouling paint that will be used, the 6999 Sandless Primer must dry "set-to-touch" or "tack-free" before top coating. The primer has dried "set-to-touch" when it feels tacky when touched with a fingertip using moderate pressure. No paint should come off the surface onto your finger. The primer has dried "tack-free" when no surface tackiness is felt when applying moderate pressure with a fingertip. Use the chart below to determine when to apply antifouling paint. Remember, this guide is only an estimate. Humidity, ventilation, film thickness, as well as temperature can all affect the rate at which the Sandless Primer dries. Therefore, wide variation from the estimated dry times shown below can occur.

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Allow the 6998 Skip Sand Primer to dry completely tack-free. The primer has dried tack-free when no surface tackiness is felt when applying moderate pressure with a fingertip. Use the chart below to determine when to apply antifouling paint. Humidity, ventilation, film thickness, as well as temperature can all affect the rate at which this Primer dries.

<table>
<tr><th>Application Temperature</th><th>6998 Skip Sand Primer
When Used Under
All Ablative or Hard
Bottom Paints
Must be Completed Within 7 Days</th><th>6999 Sandless Primer
When Used Under
Most Ablative** or
Hard Bottom Paints
Bottom paint must be completely applied before primer becomes “tack-free”</th><th>6999 Sandless Primer
When Used Under
Pettit Ultima SR-60
Bottom Paint
Bottom paint must be completely applied within 4 hours of primer becoming “tack-free”</th></tr>
<tr><td>50 Degrees</td><td rowspan="2">Apply bottom paint after a minimum 4 hours and up to a maximum of 7 days</td><td rowspan="2">Apply bottom paint after Primer becomes “Set-to-Touch”

Approximately 2 hours*</td><td rowspan="2">Apply bottom paint after Primer becomes “Tack-Free”

Approximately 4 hours*</td></tr>
<tr><td>60 Degrees</td></tr>
<tr><td>70 Degrees</td><td>Apply bottom paint after a minimum 3 hours and up to a maximum of 7 days</td><td rowspan="2">Apply bottom paint after Primer becomes “Set-to-Touch”

Approximately 1 hour*</td><td rowspan="2">Apply bottom paint after Primer becomes “Tack-Free”

Approximately 3 hours*</td></tr>
<tr><td>80 Degrees</td><td rowspan="3">Apply bottom paint after a minimum 2 hours and up to a maximum of 7 days</td></tr>
<tr><td>90 Degrees</td><td rowspan="2">Apply bottom paint after Primer becomes “Set-to-Touch”

Approximately 1/2 hour*</td><td rowspan="2">Apply bottom paint after Primer becomes “Tack-Free”

Approximately 2 hours*</td></tr>
<tr><td>100 Degrees</td></tr>
</table>

* Humidity, ventilation, film thickness, as well as temperature can all affect the rate at which the Sandless Primer dries. Therefore, wide variation from the estimated dry times can occur.

** Ablative paints that use our 120 Thinner such as Ultima SR-40, Ultima Eco, Ultima SSA, Horizons, Hydrocoat SR, Hydrocoat, Vivid Free, and Sea Mate will follow this “set-to-touch” schedule as listed.