

RPAYC Antifoul Information

The two main types of antifouling paints used at the club are Ablative (soft or self-polishing) and Hard antifouling (scrubbable)

Our main supplier is Altex and the predominantly used paint is Altex No 5

Ablative, Self-polishing antifouls, work with the action of the boat physically moving through the water, as the vessel moves the coating slowly wears away exposing fresh biocide. The surface remains smooth and tends to have less build-up over time than hard antifouls. Soft antifouls are best for yachts. In general terms boats travelling less than 20 knots.

Hard, scrubbable antifouls are designed to release their biocides during the life of the coating. The paint dries to a porous film and the biocides leach out, by scrubbing the surface you can remove the dead outer layers, and finish with a smoother surface. All this is at micron level.

Which antifoul is the best to use is a hot topic over the bar but generally speaking, Soft is for cruising hard is for racing.

Copper is the base to most antifouls, however antifoul for use on aluminium vessels uses cuprous thiocyanate as the base biocide to minimise the possibility for corrosion.

The best preparation result is obtained by high-pressure blast 2000psi – 5000psi. The club's water blaster operates at 3000psi. The international paints team recently conducted a training session to ensure that the club water blaster practices were in keeping with industry standard.

It is important that we apply direct pressure to ensure that we remove the hydrolysed layer. (The hydrolysed layer is the copperised looking layer you can see if you only give the hull a light wash. New antifoul paint will not stick to this layer.)

Yes, bog and loose paint might come off during the water blasting process, however, if 3000psi removes it, it wasn't stuck.

Any residue after the pressure blast will need to be removed by dry sanding and or using a scraper.

The club offers two types of antifoul application. Apply by roller and apply by spray coat.

The holy grail for antifoul application is film thickness. We are looking to achieve 125 microns to 150 microns wet film thickness. (WFT) In accordance with manufacturer instructions.

If your coating is too thin you will not get good life from the coating and if the film is too thick the paint will not dry correctly and ultimately fail by cracking and peeling. The thicker the coat the sooner you will need to strip back. (see below)

Most antifoul paint is required to be applied 125microns -150microns wet or 75-80 microns dry film thickness (DFT) per coat to deliver a life expectancy of about 12 months.

RPAYC lays two coats by roller, each 125-150 microns over a vessel in two passes. We lay a 3rd coat around the waterline and leading edges. The club lays approximately 250 microns by airless sprayer in one pass on each vessel. Our guys use a WFT gauge to check that they are applying the paint in accordance with the paint manufacturer's instructions.

Life expectancy is a difficult question. The guys at Bobbin head get 2 years out of one coat, boats moored at the spit get 1 year. Clean or dirty water, summer or winter, up the river or close to the sea all have an effect on how long the coating will last. Even when you choose to do your antifoul, apply it in winter so that the it is depleted by summer and you will get less life. Travel out of the area that you normally stay, ie go to Sydney harbour for 1 month, will all have an effect on the life of your coating.

Adding a second coat does not equal double the life. The quality of your previous coating will also affect new coating, as a rough guide 1 coat 10 months to 1 year - 2 coats 18 months to 2 years.

When applying the antifoul by roller application we use short hair rollers as standard practice. We are able to achieve a good full coat and a reasonable flatness to the applied coat.

We are able to achieve flatter finish if required for racing, by using a combination of higher quality roller covers and tipping the paint with a brush, there would be extra charges to achieve this finish.

One of the main advantages for roller application is that we can achieve a flat consistent cover over the boat in all weather conditions. Should be noted that the paint is only applied over a dry substrate.

It should be noted that for the serious racer who scrubs the hull any dimpling that does occur by roller application is flattened out by the first scrub

When using spray applications, we are restricted in application times to no wind and clear atmospheric conditions for ideal application.

If it is windy, you will get distorted film thickness as the spray fan is influenced by wind. Even a very good spray applicator will experience spray fan deviation by wind. If it is windy or damp, we are not able to spray which plays havoc with our haul schedule. If we can't spray boat owners may be charged lay days while we wait for favourable conditions. It blows northeast from 10am to 8pm most days from November to February.

If your surface has any cracking or peeling we recommend roller application. When applying paint with roller there is no thinning of the paint. Thinning of the paint ultimately reduces the solid content in the paint. The higher the content of thinner the larger "Bite" into the previous layer, which can cause the previous layer to lift where it is thin. This regularly occurs during spray application. Spray application is best reserved for underwater areas in excellent condition. The paint arrives in a tin ready to apply, best result is obtained when the paint is applied from the tin.

Where there is significant paint cracking, peeling or surface deterioration we recommend hard dry sanding. The club has several high quality Festool vacuum sanders that provide a quality finish and clean working environment.

Cracking and peeling is always apparent around the water line. This is due to this area being constantly wet and dry. The paint dries out and becomes brittle. It is suggested that the waterline is sanded with a dry sand operation every three years or when necessary to keep the waterline looking its best.

Over the years paint will build up and at approximately 8 years you will start to notice small sections of paint cracking and flaking. Ablative antifouls last longer but for most boats it will be apparent from 10 to 12 years that your paint surface is deteriorated. Larger sections will be flaky, and the water blaster will remove significant areas of paint.

You don't have to strip the hull back. You can just scrape, sand and continually attack the worst spots prime the bare areas and apply antifoul. The antifoul paint will still work however you will see more and more flaking and have a rough surface.

It is however recommended that when it's time to remove the old paint Soda blasting is the preferred method. It could be scrapped and there are some paint stripper options available however soda blasting is the most productive.

The vessel is tarped up and a soda blast machine is brought onsite to perform the task.

Once soda blasted the hull is sanded, spot filled if required, epoxy primed and antifouled again.

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