Application of Professional Antifouling

Micron 66, Micron Extra, Uni-Pro Antifouling and Trilux 33

Changes in the Law Regarding Organo-tin base Antifouling

As of 31st December 2002 all organo-tin based antifouling compositions became illegal. The agreement to replace organo-tin is global and International Paint Ltd fully supports the work of the IMO and MEPC in securing this treaty. These materials have been replaced by a new generation of high performance antifouling based on a totally different technology whilst retaining the self-polishing (SPC) concept previously well established in tin based compositions. This has ensured that the replacement products give equal, if not better, performance than their tin based forebears.

Antifouling Compatibility

The compatibility of antifouling is vitally important, so if an antifouling system currently exists on the vessel, check the compatibility of the new antifouling to be applied. It may be necessary to remove the current coating or to apply a barrier coat. A barrier coat or back-up coat is particularly applicable if using Micron 66. However, if using Micron Extra or Trilux 33 there is a high probability that they will be directly compatible to the existing coating and no barrier coat will be required. Under both the EU regulation and the IMO antifouling convention, tin containing antifouling must either be removed or a sealer coat applied by 1st January 2008. Therefore, International recommends the use of Primocon (minimum dft of 80 microns – 2 coats by roller) as a sealer coat when tested in accordance with ASTM D5108-96 (modified), as it forms a barrier to TBT leaching from an underlying TBT antifouling.

You are advised to consult your local International Paint Technical Representative with regards the compatibility aspects.

Prior to Application

The first decision to be made is which of the antifouling to use to meet the requirements of the cruising schedule and material from which the vessel is built. Factors to consider are:

- Service period of 6/12/18/24 months
- Fouling intensity in cruising area
- Aluminium/alloy substrate
- Colour requirement

Having made this study the compatibility of antifouling is vitally important whether you are applying over a primer, a tie coat or an existing antifouling system. One check is to apply a patch of antifouling over that which already exists be it antifouling, primer or tie coat and if problems such as cracking are likely to occur after the antifouling test patch has dried out. If this does not occur it would usually indicate that the adhesion would be satisfactory but further examination is desirable. However this is not a 100% foolproof procedure. It may be necessary to remove the current antifouling or to apply a barrier coat. If you have any doubts about the compatibility of antifouling compositions consult your local International Paint Technical Representative.

If the antifouling is to be spray applied and the applicator is unfamiliar with either the antifouling or spray equipment we recommend spray trials be carried out prior to actual application. Consult the Product Data Sheets and the Material Safety Data Sheets for not only do you require the correct application advice but also the protection of the operator is vitally important.

Note the batch numbers of the antifouling and any associated primers/tie coats to be used and conditions at the time of application and keep this record in the Coatings Diary.

Application of Antifouling

***Newbuilding*:** This will be dependent upon yard procedures that could change from yard to yard with some applying by airless spray whilst other prefer to roller apply antifouling.

Additionally at the new building stage a decision has to be made as to whether a full antifouling system is applied or whether the vessel will be fitted out afloat. In this latter case the antifouling choice may vary and a single coat of suitable “fitting out” antifouling be applied with a view to applying a full antifouling system at a later date either at the new building yard or some other dry dock after sea trials. Care should be taken to ensure a suitable primer or tie coat exists on the vessel. In new building situations it is normal practise to apply Micron 66, Micron Extra and Trilux 33 over a tie coat of Interprotect (YPA403/YPA404).

Major Refurbishment: Major refurbishment of vessels already in service presents a different problem and in most cases the antifouling application will be over an existing antifouling system. In refurbishment situations a proportion of the original scheme may well be removed either during the high-pressure fresh water wash (HPFWW 3000 psi 210 bar) procedure, or after further inspection, and a considerable amount of touch primer work may be taking place. Ensure primers are compatible and take precaution not to overlap some primers. Particularly epoxy based, with the existing antifouling system as this may result in splitting at a later stage whilst in service. If all the repair work and the existing antifouling are to be sealed off, ensure the primer/tie coat is compatible. Intertuf 203 or Primocon (YPA984) are often used for this purpose and are particularly appropriate to users of Micron 66. The primer surface should be dry and free of all contaminants (oil, grease, salt etc) and over-coated with Trilux 33 within the over-coating interval specified for the primer.

General Maintenance of Antifouling systems: Most International antifouling are readily re-coatable. However we do advise that the surface be high pressure fresh water washed (HPFWW) and allowed to dry prior to recoating. It is worth checking

the integrity of the paint system particularly for system where antifouling build up may be high. Once coated observe the immersion times.

Micron 66

Micron 66 is a true SPC (Self Polishing Copolymer) Superyacht antifouling that delivers the same outstanding level of antifouling protection as TBT SPC antifoulings, but without the negative environmental impact of tin. Based on patented Biolux SPC technology, it lasts for 2 seasons and beyond and even protects over prolonged stationary periods, making Micron 66 the intelligent TBT replacement antifouling. Micron 66 maximises speed and fuel efficiency because it smoothes continuously ensuring drag is always minimised. It can also be hauled and re-launched without the need for recoating, saving time and effort in hull maintenance.

Available in Blue, Red, Black and Navy Blue the true colour of this product will be established after a period of immersion in seawater. Compatibility with other antifouling is a key issue and if any doubts remain you are advised to consult your local International Paint Technical Representative.

Micron 66 is **unsuitable** for use on **aluminium** substrates or for use in **fresh water**. The configuring of the application for the areas of the hull showing most wear due to polishing is advised and it may be prudent, as with several other types of antifouling to apply an extra coat to the waterline, rudder and leading and trailing edges.

Micron Extra

Micron Extra is a high performance eroding antifouling for the professional market. It may be applied by a variety of methods and possesses good overcoating compatibility with a wide range of other antifoulings with the correct film thickness. However there are the occasional exceptions for which you are advised to consult your local International Paint Technical Representative.

Micron Extra can provide 2 seasons performance in most high fouling environments. It can be applied for up to 12 months before scheduled launch but it is advised that the surface be freshened up by high-pressure fresh water washing (HPFWW) if prolonged atmospheric exposure has been experienced.

Micron Extra is available in Dover White, Black, Red and Blue. Micron Extra is ***not*** recommended for use on **aluminium** substrates.

Uni-Pro Antifouling

Uni-Pro antifouling is universal and designed for both sailing boats and powerboats operating at speeds up to 25 knots. It will give a season ling performance in most yachting environments depending upon the vessels service. Uni-Pro is compatible with the majority of antifouling scheme but is not recommended for use on aluminium/alloy or zinc substrates. The product is available in Shell White, Blue, Red and Black.

Trilux 33

Trilux 33 antifouling is suitable for use on aluminium substrates. Trilux 33 features low polishing hybrid matrix system making it suitable for high-speed vessels commonly constructed of aluminium. Trilux 33 possesses good overcoating characteristics when overcoating old tin based antifouling but there will be exceptions for which a barrier coat is recommended. Consult your local International Paint Technical Representative regarding compatibility.

Available in Off-white, Black, Red and Navy Blue. Trilux 33 gives 18 months service in most yachting environments, however in particularly severe fouling areas performance may be reduced to 12 months.

After Application

Note the quantity of paint actually used. This will allow you to calculate if the correct film thickness has been applied and therefore to ensure required protection service period would be reached.

It is advisable with self-polishing systems to apply additional antifouling to the high wear (polishing) areas such as the chine's, waterline, rudder etc to reduce the depletion of the thickness of the paint system. Check that the dry film thickness (DFT) of the antifouling in these areas is greater than that on the body of the hull.

Make sure that the maximum immersion time for the product is not exceeded prior to re-launch.