

# TO SERVE AND TO PROTECT

FRANCES AND MICHAEL HOWORTH LOOK AT THE LATEST PAINT AND ANTIFOULING COATINGS ALONG WITH VINYL WRAPPINGS IN USE THROUGHOUT THE SUPERYACHT INDUSTRY

**C**all it the big cover up or even, if you want to; a protection racket but the fact is: we are not entering the realms of writing about crime fiction. We are talking here about protective coatings as applied to superyachts.

With the constant need to keep a superyacht looking good, the informed maintenance and application of protective coatings is becoming an increasingly important task for the accomplished member of crew. Today's crew person needs to know how everyday issues relating to paint and varnish can be coped with and with manufacturers each claiming that their product can either cut emissions, boost performance or improve fuel economy, there is a lot more to the protection racket than just a chamois and squeazy blade.

Yachts live in some of the most corrosive conditions for paintwork in the world attacked constantly by high doses of ultra violet light and salt water. Paint surfaces are porous with millions of microscopic holes. Salt crystals get into these holes and act a little like the tip of a screwdriver boring away making the pores bigger. The sooner these salt crystals are removed the

less damage is done. The less damage is done the smoother the surface and the smoother the surface the shinier the boat looks, as light is refracted in a focussed single beam rather than diffused in many directions.

Yacht detailing products and yacht cleaning supplies from the US based Sea-Shield have been developed over the years by experienced professionals working within the superyacht industry. Their Francisco Linares understands better than most, the task involved in yacht detailing and the importance of adding a protective barrier against the damaging effects of the sun and the sea. He says, "We developed products to make the crew's life easier. When our products are applied maintenance time is substantially reduced. Future wash downs get easier every time Sea Shield is used and so insures the yacht has the best protection available."

The application of ceramic protective coatings will seal the pores on paint, glass and stainless, preventing them from being damaged and creating an uneven surface that will never shine no matter how many wash downs are done. From the crew's point of view, washing down a surface sealed with a smooth ceramic coating is



### ABSOLUTE BOAT CARE

Paintwork, varnishing, antifouling, polishing, gelcoat repairs... all done by one company. No more subcontractors arguing about who's doing what and when. Absolute Boat Care do it all, so you don't waste time organising various subcontractors and you can get on with more important work. Absolute Boat Care adjusts to changes in schedule easily and without fuss. The team understands that at peak times they need to be flexible, and we go out of our way to make sure that our work is done on time and in budget.

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## CERASHIELD

CeraShield has become the market leader in offering first class application and removal of premium ceramic and SiO<sub>2</sub> coatings to paint, glass and stainless steel which offer performance, protection and durability for the exterior and interior of superyachts. The experienced team of applicators are pioneers in this advanced technology with over 10 years' experience in applying ceramic coatings and SiO<sub>2</sub> coatings to superyachts. The company management and project management have their roots firmly embedded in the industry and in the painting sector. They pride themselves on the bespoke service and support given to the clients. Specs include 10 and 7 micron ceramic coatings, 7 micron SiO<sub>2</sub> coating, with the benefits of restoring and sealing faded paint and gel coats, and extending the life of new paint, adding a high gloss, cleaning and wash downs are easier, it protects against soot and exhaust emissions, harmful UV rays, salt and acid rain & there are no adverse effects to the future painting programme. For more details Tel: +34 635 395 345 or visit [www.cerashield.net](http://www.cerashield.net)



quick and easy and results in the perfect shine. These specialist polymer and ceramic coatings enhance and protect the exterior paint surfaces against ultra violet, salt, dirt, exhaust fumes, oil and a host of other contaminants. Using a good polish can delay a paint cycle and if applied from new or whilst still in good condition can extend the life of the paint for years.

When discussing this with Andy Williams from CeraShield he explains "All our coatings have been especially formulated and engineered. With the harsh environments that superyachts find themselves operating in its essential to protect against harmful and damaging UV rays, soot and exhaust emissions, acid rain oxidation and salt deposits. Our next generation, premium Ceramic and SiO<sub>2</sub> coatings can also restore and seal faded paint and gel coats. Once applied the ceramic coating forms a gas barrier which means no soot or exhaust emissions can penetrate the coating and leaves the surface with a slick, glass like finish that is very easy to clean and maintain without the use of aggressive chemicals and leaves the crew free to perform other important duties around the vessel."

Isofan and Stoppani are paints made for the yachting market by the German Lechler Brand. Since 1883 Stoppani has dedicated special care to product quality and reliability. The product range they offer is continuously evolving using Lechler's technological expertise with the aim of offering innovative paint processes to fully satisfy the different yachting segments' needs. The Isofan Marine product range includes solid, metallic and pearl finishes of matchless gloss, light fastness and ageing resistance for yachts, pleasure and sailing boats.

The difference between a good paint job and a poor one is always said to be down to the preparation. It is a cliché, but it is also true, that 99% of every good paint job lies in the preparation. It doesn't matter if the finish is wood or fibreglass, the prep work still has to be done. This begins with removing all hardware, railings and decorative strips. Except where the complete removal of the object cannot be safely achieved the use of masking tape should be avoided. Before applying any coating, check that air conditioning units that vent on the area to be coated are cleaned or if possible that the fans have been turned off. It is a sad fact of life that the Sahara Desert is just too close to the marinas on the northern shores of the Mediterranean. That and the fact that superyacht docks are often close to roads, means that whenever crew are trying to paint a surface outside they encounter dust. Minute particles of sand or road grit are generally invisible to the eye but add a layer of wet coating to a surface and the annoying molecules of grit can quickly spoil hours of hard work. It's a really good idea to use an air compressor to blow away dust from its surface and then to sprinkle clean fresh water on the deck, in the area being coated. This will help keep dust on the deck and help prevent it moving around in the air.

Kevin Viles recently sold out his fairing and painting company Concept Yachts Finishing brand to Finishing De Luxe in Germany and joined the board of the newly enlarged company as Commercial Director. Now with offices in the UK, Holland and Germany the company currently has five projects over 50 metres running simultaneously inside Heesen Yachts, along with two 90 metre refit projects underway at Royal Huisman." Director Chasan Kalfoglou says, "For us it goes without saying that good preparation is one of the most important steps that we take on our projects. A high standard of preparation starts from day one and we maintain a high standard throughout the process."

## ATLAS PAINT CONSULTANTS

For most of the different disciplines on a yacht sophisticated systems are developed and in use, on which long term maintenance is based. These systems clearly stipulate what kind of work is required, when it needs to be carried out and what the costs involved are to keep the vessel in top condition. Such a maintenance system has not been developed for the paint discipline, which is one of the largest returning items on yachts. Atlas Paint Consultants has recognised the need for such Paint Maintenance Manual and has developed such a document. In general the purpose of the document is to create and maintain a data bank of the paint condition on a yacht. Enabling yacht managers and/or captains to adequately plan and budget their future paint refit work.

For more details Tel: +31 (0)10 2681495  
or visit [www.atlaspaintconsultants.com](http://www.atlaspaintconsultants.com)

These steps in preparation are crucial for the final result as poor preparation is easily spotted in the final top coat (gloss) and could easily compromise both manufacturers warranties and the overall finish of the vessel. The client expects a very high quality finish and as a standard we strive to provide this every time. Taking steps backwards on a project due to poor preparation is never efficient and extremely costly, so why risk it?"

Longevity, high gloss and easy cleaning are the standout features offered by a new class of coating made possible by recent advances in ceramic chemistry: Zytexx Clear-Coat. When using this revolutionary ceramic coating, salts, pollutants, acid rain streaks, oils and diesel soot are all easily removed. The hard, slick, abrasion-resistant finish does not wear down like waxes, polishes and polymers.

More importantly the product cuts crew cleaning time down to a fraction. By preventing diesel soot from permanently staining polyurethane paints, crew can avoid unsightly and expensive damage and eliminate the need to tediously polish out these defects. With its hard, scratch-resistant properties, fenders and hawsers mark Zytexx far less than paint. The company has supplied over 90 vessels in the Mediterranean alone all are using it to great effect. Captain Eddie West, in command of Sarafsa, is a big fan and has stated, "Zytexx has without doubt, extended the life of our paintwork to the extent where we have original paint of 11 years old in some areas. Glass readings were as low as 7 prior to using Zytexx and now readings are in the high 80s on this old paint. The application team are quick and efficient, just give them a cherry picker and leave them to it."

Speaking for the company, Michael Pass says Captains should look out for Zytexx for glass surfaces. He says, "Our Glass Treatment restores salt pitted windows to clarity, greatly enhancing the look of your vessel. Treated windows become extremely water repellent; Water literally rolls right off eliminating spotting and reducing further etching. Even on windows fitted with wiper blades, Zytexx Glass Treatment provides long-lasting hydrophobicity."

Nico Roper of Atlas Paint Consultants believes it is important before contemplating any large scale painting project, specialist firms such as his are called in. The job of a consultant should



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be to carry out a full pre refit paint status survey. Once that is done the consultant should prepare a bid book to reflect all the necessary requirements. Then he should have the yard and or the paint contractor prepare a paint manual. "It is vital," he says, "to list the responsibilities and communication lines to make sure there are clear and open cooperation between all parties".

Painted surfaces that have a dappled look about them are often referred to as having an orange peel finish because of the texture of the surface after coating resembles the skin of an orange or grapefruit. This phenomenon is almost certainly the result of improper painting a technique, and can often be caused by fast evaporation of thinners or when using an incorrectly set up spray gun. It can also arise when a surface is painted with a roller using too little pain or too thick a paint so that the surface dries before the texture as a whole does so. When using a spray gun check the air pressure and ensure the correctly sized nozzle is fitted. Avoid spraying paint at an angle other than perpendicular to the surface and never apply an over excessive amount of paint.

When painting, it is always best to avoid extreme air quality or temperature conditions. Low temperatures will for example



### COPPERCOAT SUPERYACHT

Coppercoat® Superyacht is the longest lasting anti-foul coating available. With a lifespan of between 10 and 20 years per treatment, this ultra hard wearing epoxy anti-foul eliminates the need for the repeated costly and time-consuming dry dockings necessary for reapplications of conventional anti-foul. By removing the need to continually dock and re-anti-foul, long life Coppercoat® Superyacht provides unbeatable value for money. The original Coppercoat® was launched some 20 years ago and is now used by over 60,000 vessels Worldwide. Coppercoat® Superyacht is specific to the larger boat market, being made suitable for application by spray as well as roller. For more details Tel: +44 (0)1258 861059 or visit [www.coppercoat-superyacht.com](http://www.coppercoat-superyacht.com)

increase drying times while high temperatures will reduce drying times and can make application more difficult, as product flow and levelling is compromised. Optimal painting conditions are when the ambient temperature is between 10 - 26°C and relative humidity is below 65%.

It is always best to avoid painting in direct sunlight, or when the substrate itself is excessively warm. One good way to check this is to check the surface temperature using a specialised surface thermometer.

With over 20 years experience crewing superyachts, Duncan Sykes the Managing Director at Absolute Boat Care, understand absolutely the requirements and demands of captains and owners alike. Based in Mallorca, they have a large, highly professional team who have the capabilities to undertake absolutely any job, whatever the size. Captain Jason Lambourne, of the motor yacht Angara has enjoyed working with Absolute Boat Care and done so for the past four years. He says, "The products and the knowledge they employ when polishing Angara have always given her an incredible shine and made sure she is looking fantastic for her owners every season."

When applying epoxies in high humidity conditions they can develop an 'amine blush' on the surface particularly at lower temperatures. This slightly sticky substance must be removed and can normally be washed off with soap and water. If the blush is not removed it can lead to the delamination of subsequent coats. High humidity conditions can reduce the amount of solvent evaporation during the drying/curing stages; with epoxies this can lead to a 'soft cure' where solvent can remain trapped in the film for many days leading to slow or poor final cure.

Patching paint is always tricky. There are some who say patching should always be thought of as a temporary repair because it will more than likely always be identified as such. Others believe that done well it is hard to tell if a patch repair has been made or not. It is a truism, however, that hard cut lines are almost always visible, especially in darker colours the likes of dark blues and blacks. They should, be avoided in areas where they are going to be very easy to spot.

It is of course imperative to use the same brand and colour as the original when trying to perfect the repair. One good tip is to keep a log of what is painted when it was completed and what



### FINISHING DE LUXE

Finishing De Luxe are a family run superyacht fairing and painting company with experience that goes back over 30 years. Regarded as one of the best kept secrets in the superyacht finishing industry, and with a team of over 250 highly experienced professionals, FDL are leading the way and setting the industries highest standards. Boasting an international management team and offices in the UK, Germany and Holland, Finishing De Luxe are a truly global company. FDL pride themselves on not having to rely on subcontractor teams, as do so many other larger finishing companies, Last season the company successfully ran and completed multiple projects in five different countries at the same time.

For more details Tel: +49 (0) 177 38 80 410 or visit [www.finishing-deluxe.com](http://www.finishing-deluxe.com)

product was used noting any batch numbers or identification codes shown on the tin. That way you know exactly what colour was originally used.

Some experts suggest it is best not to polish hard cut lines advising, hard cut lines will look worse than if they were simply left as they were. It is sometimes better to paint an entire section than a patch in the middle of a surface, as you would have less risk of it being visible. Larger areas are often better than smaller ones. Polishing out soft cut lines using specialist polishes is always the better solution. Certain paints can be polished and others cannot be polished, so be aware of what is possible before you start. A well polished patch when done properly will be almost invisible.

Based in Palma de Mallorca, Pure, headed up by Nic Clarke has painted over 20 superyachts in the 10 years the company has been in business project managing refits. He says, "I know a bit about paint and coatings but could not be regarded as an expert. That is why we always retain the services of a paint surveyor, sometimes much to the annoyance of the applicators working on the project. It was the project management style of the company that secured the responsibility of completely repainting the exterior of the 70 metre Lurssen built Saint Nicholas and it was perhaps because of the paint quality that this yacht exchanged hands so quickly one released onto the brokerage market.

**Versatility**

One certain benefit of Ceramic and Sio2 coatings from CeraShield is the ease of cleaning. "All that's needed by the crew is a simple pH neutral soapy washdown" says Andy Williams. "No aggressive chemicals or polishing is required, which considerably cuts down the time crew members are kept away from other important tasks and is obviously better for the overall health and safety of the crew and means that no harsh chemicals are being dispersed into our oceans"

Williams continues, "But it's not just the paint work that can benefit, why not apply to metals and glass? Metals onboard would no longer need to be polished before every boss or guest trip. The coating keeps the metal looking bright with that 'just



**SEA-SHIELD**

The SEA-SHIELD brand has been developed over the years by experienced professionals working within the boating and mega yacht industry. SEA-SHIELD understands better than most the task involved in yacht detailing and the importance of adding a protective barrier against the damaging effects of the sun and the sea. When SEA-SHIELD products are applied your yacht and maintenance time can be substantially reduced. Future wash downs get easier every time you use the products insuring your yacht has the best protection available.

For more details Tel: +1 954 519 2014 or visit [www.sea-shield.com](http://www.sea-shield.com)

polished look'. Plus glass, which quickly becomes oxidised and suffers from calcium build up can be protected. Once the coating is applied the surface becomes hydrophobic and repels the harsh environments for a much longer period of time. And, for the longer term we have devised a 5 year gloss protection programme. For its duration, and longer if required, we send CeraShield teams to wherever the vessel is having downtime for maintenance, to undertake an agreed portion of the 5 year protection plan. This will then guarantee the vessels exterior painted surfaces will always remain glossy, simple!"



**LECHLER**

Stoppani is the specialist painting system and product developed for yachting by the Lechler brand. The brand has enjoyed success in this field since 1883 and is well known for the quality of its products. The product range is composed of antifoulings, primers and intermediates, lightweight epoxy fillers, topcoats, clear varnishes, teak products, and is continuously evolving with the aim of offering worldwide reliable and innovative paint processes. The colour selection is broad and complements the preparation paint processes in order to guarantee solid, metallic and pearl finishes of matchless gloss, light fastness and ageing resistance for yachts and other marine vessels.

For more details Tel: +39 031586111 or visit [www.lechler.eu](http://www.lechler.eu)

## "The application of ZYTEXX was a Eureka moment"

// Eddie Cooney, Captain- M.Y. Grace E

### ZYTEXX

The Hybrid-Ceramic Coating Paint Protection PG44XX Series. Zytexx laboratories are at the forefront of the ceramic coating industry. Year in, year out they continue to develop and advance the proprietary clear-coats designed for the marine industry. "We had continual issues with the hull staining after long passages, and being a large area, began to be quite time consuming for the crew to keep on top of keeping the hull looking good. The application of ZYTEXX was a eureka moment, suddenly everything became easier, and additionally the hull finish was gleaming" Eddie Cooney, M/Y Grace E . For more details Tel: +33(0)4 83 28 2178 or visit [www.zytexx.com](http://www.zytexx.com)



hulls revealed almost no loss of coating thickness. Barring the faintest trace of slime at the waterline in some parts, the hulls were virtually spotless.

So well did the Coppercoat antifoul perform that, for the first time in the Clipper's 22-year history, the boats did not need to be lifted out at the race's halfway mark in Sydney. As every boat owner is all too painfully aware, lifting out vessels to clean off old antifoul and apply a new coat can be a slow and costly business, so Coppercoat's matchless resilience meant substantial savings in time and money for Clipper Race organisers and crews alike. "This enormously successful outcome understandably delighted us, the crews and the race organisers in equal measure," adds Ewan Clark. "Look no further for a clear vindication of Coppercoat's efficiency and longevity."

### THESE HARD-WEARING AND DENSELY COPPER-FILLED EPOXY RESINS PROVIDE PROTECTION AGAINST UNWANTED MARINE GROWTH FOR MANY YEARS

Such positive feedback contrasts markedly with recent testimony from sailors involved in other global circumnavigations, who reported that rival coatings used on their boat hulls only lasted for less than six months. Even, by this point, barnacle growth on hulls was so advanced that it was calculated to be responsible for a 0.5 to 1 knot reduction in boat speed for every hour sailed.

#### It's a wrap

Paints and varnishes are not the only way to protect surfaces and keep things smart. Vinyl wrapping is a way of protecting a paint finish with a plastic layer, rather than a chemical topcoat. The process known as wrapping has developed dramatically over the past decade and has moved into the premier league of coatings and is no longer simply in the realm of those seeking to temporarily advertise a new product or design on the side of a commercial white van. Vinyl allows for special effects the likes of pearlescent or matt effect to be applied if required, and we are now seeing many interiors receiving a fresh coat of vinyl...

### Bottom coats

Aquarius Marine Coatings Ltd. manufactures the high-performance multi-season antifouls Coppercoat, Coppercoat-Superyacht and Coppercoat Commercial. Since launching in 1991, these coatings have proven to be durable and long-lasting. These hard-wearing and densely copper-filled epoxy resins provide protection against unwanted marine growth for many years (commonly over a decade). To date, more than 60,000 sail and power vessels have been treated with Coppercoat in the leisure, commercial and superyacht sectors.

Coppercoat consists of copper powder and resin, and its non-ablative characteristics mean it will firmly adhere to a wide variety of surfaces including GRP, concrete, steel, iron and aluminium. Its leach rate is less than 50mcg/cu/cm<sup>2</sup> after 30 days. Managing Director at Coppercoat Ewan Clark says, "Increasingly restrictive laws governing the use of biocides in ant-fouls weighs heavily on coating manufacturers. Within Europe, the latest Biocides and Pesticides Register has reduced the number of allowable biocides by approximately 80%. The armoury available to paint chemists has been severely depleted." He adds, "But a restricted choice of ingredients and a lowering of biocide levels need not result in poor performance. The latest coatings technology concentrates on making best use of the ingredients. The latest Coppercoat-Superyacht anti-foul being a case in point. The water-based, VOC-free epoxy carrier is loaded with pure copper particles, curing to create a semi-permanent outer surface so copper-rich as to be inhospitable to virtually all bio-fouling."

The proof of the pudding is they say is in the eating. Coppercoat is currently celebrating its own memorable proof in the aftermath of the 2017-2018 Clipper Round The World Race. When the Clipper boats were finally lifted out after 40,000NM of racing and 16 months of continual immersion, the Coppercoat on their