



PERMANON

Background & application guide

Abstract

This document describes the advantages of Permanon and how to apply and maintain

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Introduction to Permanon

Permanon Yacht Supershine Pro is especially beneficial for Superyachts and their crew

1. Permanon provides a safe way for crews to apply a high-gloss surface conserving protection to all surfaces without having to use surface degrading polishing which often leads to halo swirls, surface degradation and eventually to earlier repainting. In contrast Permanon Supershine's natural coating extends the life of Yacht Paint due to its extremely high UV resistance, detergent & acid resistance, salt & oxidation resistance etc. Permanon Supershine does not bond chemically, only statically making it completely safe for every surface, including polyurethane paint coatings, steel, glass, varnish, gelcoat, GRP, leather etc. Once the Supershine coating is applied, wash-downs become up to 50% faster and easier as dirt, salt and minerals cannot stick to surfaces as strongly as before;

Making regular wash-downs much simpler, faster and easier

2. Permanon products easily provide a natural high-gloss and multi-resistant surface protection **without chemical bonding** to almost every surface. Permanon products are made up of the natural element Si14 in its elemental / monomolecular form, so are more than 96% biodegradable and not harmful to person or nature. The Si14 molecules have been positively charged so Permanon products are the only sealants to connect electro-statically to surfaces rather than chemically. Meaning that, Permanon products can be applied **safely** to **any** solid surface without **any** risk of damage including glass, GRP, paint, leather, steel, plastic etc. The immediate static connection enables results that normally require hours of labour intensive work to achieve with conventional products to be achieved in minutes through Permanon's pioneering development. Permanon products do not contain silicone and can be completely, easily and rapidly removed for repainting by a wash down with an alkaline product of over 12PH i.e. 12.5PH, 13PH or by the normal light sanding that is always carried out before painting to prepare the surface. **Permanon products have been specially designed and engineered so that no special procedure or extra sanding will ever be required to remove Permanon products for repainting! The normal, standard surface preparation procedure that must be carried out to re-paint a yacht properly is more than enough to completely remove all Permanon coating elements! This is another very important unique benefit of Permanon products!** Furthermore, since Permanon products are mono-molecular and not tri-molecular like other products, Permanon products only seal up to 90%, blocking water and moisture whilst allowing the surface to breathe. This is very important for leather and fresh paint, as 'out-gassing' the releasing of solvents from freshly applied paint is not prevented.

3. Another great benefit for yacht surfaces, crews and the environment is that once Permanon Supershine has been applied, crews need only rinse or wipe down the yacht's surface with water and wet cloths to rinse off grime and dirt. A hydrophobic effect will also be observed making drying the yacht easier and faster, whilst leaving a high-gloss effect on all surfaces to please all, especially the owner! Some crew prefer to keep using their regular detergents as normal. However, some of these detergents contain waxes which are not recommended for use. VMP recommends to use Permanon Yacht Wash, which does not contain any waxes and is fully compatible with Supershine. It may still be ok – if no waxes- to use alternative shampoos as Permanon resists from PH1 to PH12, so will not be stripped of by regular day to day washing. Thanks to the Permanon coating, yacht surfaces can now be successfully cleaned with using even 50% less concentrated detergents. For example, instead of using 50 litres a month, 25 litres can now be used. This is much better for expensive and sensitive yacht surfaces, the environment and is also financially beneficial.
4. These Permanon benefits can be maintained indefinitely by periodically adding Permanon Supershine to the rinse down procedure. Add 2-3% Yacht Supershine Pro to Permanon Yacht Wash. While Permanon Yacht Wash cleans, the mixture automatically tops up and maintains the high-gloss Supershine coating. An extremely easy and environmentally friendly way to maintain a value conserving high-gloss protection. Crews will conserve the environment and Yacht surfaces whilst pleasing the owner and saving time.
Crews will no longer need to use aggressive and damaging detergents that harm the environment, their health and the yacht surfaces. Instead they will protect and maintain the value of the yacht's surface whilst providing the yacht with an easy to maintain, high-gloss protection that cannot harm any surface in even the slightest way due to its purely natural static connection.
Permanon Yacht Wash is a low-foaming product and all Permanon surface protection products are tested on their neutrality towards even the smallest single cell aquatic life forms by the Veterinary University of Hanover which specialises in fish behaviour and illnesses. No damage was observed to even single cell organisms when exposed to Permanon surface treatment products.
5. Permanon has been tested in independent Weather-o-meter´ accelerated exposure tests. The latest test exposed coatings to strong ultraviolet light (artificial) and high condensation (salt water-spray). It is proposed that 5000 hours/208 days in the Weather-o-meter test chamber may be similar to about 6 years of outdoor exposure in a marine environment in the Mediterranean area. The test results show that Permanon Supershine sealer applied onto a polyurethane topcoat has a significantly positive effect on the topcoat's gloss retention and general weathering properties – particularly in the longer term after the topcoat has been exposed for some time.
Test results showed gloss loss was cut to almost half with a single undiluted wipe of Permanon. Meaning that regular Permanon treatments at 3-5% Yacht Supershine Pro with Permanon Yacht Wash can double the life of a topcoat.

6. Permanon Supershine only needs to be sprayed on a clean, grease and wax free surface, and then thoroughly dried to prevent water marks. Or rinsed with osmosis (demineralised water) then no drying is required, as there will be no minerals to leave watermarks. No reaction time, compounding, buffing, polishing or waxing is ever required. A non-invasive, non-abrasive, fast and safe way to apply a high-gloss surface conserving protection.
7. Unlike Polymer and wax products Permanon coatings are resistant from 1 PH to 12 PH, and so do not get stripped off when other detergents are used.
8. During transport or sea-voyages a hydrophobic effect will be observed on all surfaces including windows, which will also benefit from increased transparency.
9. If a surface is very dull traditional polishing (cutting-back) will be required before applying a protective Permanon coating. If only moderate gloss has been lost, Permanon Supershine can bring gloss back.
10. It is also possible to seal a yacht's interior surfaces, which can then be maintained with Permanon's interior cleaning product Sanides (contains positively charged Si14). This will save stewardesses a lot of time when cleaning interior surfaces as dirt will not stick and will be easy to remove. In the Hotel industry cleaners save up to 7 minutes per room. Independent tests by bacteriological institutes have confirmed that with even half the frequency of cleaning Bacteria levels remain much lower than when only traditional products are used. This is because bacteria are cut off from the microscopic surface pores required for its survival and reproduction. Bacteria remain on top of Permanon's Si14 coating and can be easily wiped off.
Permanon has also recently developed a highly effective Powersoap capable of easily and quickly removing all heavy organic fouling including marine and aviation exhaust from solid or rubber surfaces without removing the shine of a surface or damaging it in any way. Photos and further information can be found on our website www.vesselmaintenanceproducts.com/en/brands/permanon
11. Permanon products are sold highly concentrated to keep shipping costs low. This also works towards preserving the environment, as shipping lots of water also creates unnecessarily large amounts of Co2 during transport. Therefore Permanon products need to be diluted at 3-5% (maintenance) , making Permanon products the most competitively priced in the industry for world-wide shipping. 1 Litre of Permanon Supershine is enough to treat circa 1000 square metres (depending on dilution 3-5%)



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12. Overview

Protection characteristics:

- Resistant to all kinds of contamination;
- Insects, bird droppings, tree resin
- Lime scale, oxidation-residues, general wear
- Resistant from -40°C to + 300°C
- Resistant against ultra violet (UV) light exposure
- Resistant against alkaline up to pH 12,5
- Resistant against acid (except hydrofluoric acid)
- Resistant against disinfectants
Germ and dirt blocker – soil resisting

The 10 point principles of Permanon products

- Suited for all surfaces and materials
- Value conservation
- Clearly slighter re-soiling after application
- Time saving of 30% compared to conventional products
- Costs saving up to 30%
- Improved hygiene status
- Electrostatic adhesion
- No wax or silicone oils
- Based on pure monomolecular silicium(Si14)
- Non-polluting for person and nature

Application manual

First application

Important: do not clean in direct sunlight or on a warm to hot surface!

1. Step 1: Organic Cleaning (Hecta)

- Organic cleaning is necessary to remove all organic dirt (soot, bird droppings, etc.) from the pores on the surface so the Supershine platelets can fill the pores and adhere electrostatically to the full.

Needed: water hose, bucket 10L, soft brush, Hecta, water

Prepare a bucket (10L) of tap water and add 50ml of Hecta. Wet the surface first, then wash down the surface with a soft brush. Black streaks or stubborn stains can be removed with Permanon PS Paste. Make sure the surface does not dry out. When finished cleaning, rinse with tap water. No drying needed. Proceed to step 2.

2. Step 2: Mineral Cleaning (Omega)

- Mineral Cleaning is necessary to remove all mineral soiling (Salt, sand, lime, etc.) from the pores on the surface so the Supershine platelets can fill the pores and adhere electrostatically to the full.

Needed: water hose, bucket 10L, soft brush, Omega, water

Prepare a bucket (10L) of tap water and add 50ml of Omega. Wet the surface first, then wash down the surface with a soft brush. Make sure the surface does not dry out. When finished cleaning, rinse with tap water. No drying needed. Proceed to step 3.

3. Step 3: Apply Yacht Supershine Pro

Needed: Yacht Supershine Pro, Spray pump, (de-mineralised) water, micro-fiber cloths

Take the spray pump (eventually pressurised) and fill with 10-15% Yacht Supershine. Add 90-85% water (ideally de-mineralised). Spray economically on the surface. A mist suffices, no droplets needed. Permanon bonds with the surface and does not bond to itself. This means putting 2 layers is impossible (electrostatic bonding). Permanon bonds immediately. Dry with a microfiber cloth using mild to hard pressure.

Apply on paint, GRP, Stainless Steel, bottom line – all hard surfaces

Hydrofobic effect = immediately. Supershine comes in 20-30 minutes.

Note: apply Yacht Supershine Pro on windows as well. The hydrofobic effect will eliminate the need for Spray-X.



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Maintenance

1. Daily washdowns:

Needed: Bucket, soft brush, waterhose, Yacht wash

Pour 20ml (approx) of Yacht Wash in a bucket, dilute with 10L. Wash down as usual

2. Weekly washdown

Same as daily washdown, but add 2-3% Yacht Supershine Pro.

This will maintain the coating.