Nanoman Marine Anti-Foul

Nanoman Marine Anti-Foul Coating is an advanced, high performance, LONG LASTING ONE COAT, coating formulated to generate an ANTI-OXIDATION, ANTI-FOULING and EASY-TO-CLEAN effect on metal and fibreglass / gel-coat (and other) surfaces.

Nanoman Marine Anti-Foul Coating is a thin, clear, and extremely smooth, nanotechnology enabled coating that inhibits the attachment and growth of most marine grasses, barnacles, and mussels. It can be applied to metal and fibreglass ship and boat hulls to provide better fuel economy and reduced cleaning. It is free of pesticides and heavy metals. This coating works on all ferrous / non ferrous metal and fibreglass (gel coat) hulls, and ferrous / non ferrous metal underwater running gear such as propellers, rudders, shafts, struts and trim tabs.

Nanoman Marine Anti-Foul is a one-component nanotechnology enabled coating that can be applied by spraying, brushing or rolling and produces an extremely slick and thin barrier between the water and the boat’s surface that reduces the adhesive ability of marine growth (algae, barnacles etc), and contaminants while generating a scratch resistant, anti-sticking and anti oxidising protection on metallic and fibreglass surfaces. Any fouling that does occur when the vessel is moored and not being used will be removed when the vessel is underway, offering a self cleaning effect.

This long-lasting barrier between the boat surface and water allows the continued removal of marine growth without damage to underlying surface of the boat.

The invisible finish is abrasion resistant and will not yellow with age.

Unlike other anti-foul coatings that are designed to erode away, Nanoman Marine Anti-Foul attaches to the boat hull and reduces the ability of marine growth to foul a boat and what little growth that manages to attach itself to a boat can easily be removed with a sponge or pressure washer.

Nanoman Marine Anti-Foul is ECO FRIENDLY as it does not contain heavy metals and does not rely on the anti foul eroding off a boats surface to keep it free from marine growth. It has almost no VOC’s and is kinder to the environment as it eliminates the need for harsh environmentally damaging chemical marine growth cleaners.

Nanoman Marine Anti-Foul is truly the 21st century COST EFFECTIVE solution to for boat owners in controlling the cost removing marine growth.
Features and Benefits:

- Fungus/algae & bacteria/barnacle resistant
- Environmentally Friendly – reduces damage to the environment
- Reduces Fuel Consumption
- Inhibit Marine Growth
- Can be applied directly to gel-coat
- Reduces haul out cost / time
- Increases Speed
- Single coat application
- Long lasting and durable
- Does not alter the visual appearance of the substrate.
- Excellent Hydrophobic properties providing an easy/self cleaning surface
- UV-stable.
- Enduring protection for the surface structure.

Surfaces and Uses:

Nanoman Marine Anti-Foul is ideal protection for all GRP, Steel, Aluminium boats and, SS surfaces and Propellers. Including:

- Pleasure and racing yachts
- Motor yachts
- Any boats that will be moored in water
- Fishing Boats
- Commercial Boats
- Metal and fibreglass structures

In fact anywhere where marine growth is a problem

Advantages of Nanoman:

*Improved Protection* – Provides excellent abrasion resistance, lower surface friction and inhibits slime / barnacle / fungus build-up

*Eco- Friendly* – Does not erode off the surface and contains no heavy metals.

*Easy to Use* – One coat time saving application

*Cost effective* – Less time out of the water, combined with smoother hull delivering fuel and emission savings.

*Suitable* – For all boat speeds including high speed

*Prolonged* – Protection over stationery periods and static fouling resistance
Usage / Coverage:

Coverage of Nanoman Marine Anti-Foul is 10-20ml per m². One (1) litre will cover up to 100m² depending upon the method of application. Nanoman Marine Anti-Foul is best sprayed onto the surface to achieve the proper coverage, however if the surface or location is not suitable for spraying, application can be done by rolling or brushing.

To help calculate the surface to be treated with Nanoman Marine Anti-Foul you could use these simple guides as an estimate:

For Displacement Hull – Length of Waterline x (Breadth + Depth) = Square Metres

For Semi-Displacement Hull - Length of Waterline x (Breadth + Depth) * 0.75= Square Metres

For Deep Keeled Yachts - Length of Waterline x (Breadth + Depth) * 0.5= Square Metres

Durability:

Nanoman Marine Anti-Foul has an effective life of 12-18 months depending on how frequently the boat is used, where it lives and the harshness of that environment.

To ensure a boat is well protected we recommend the reapplication of Nanoman Marine Anti Foul every year. It does last longer but application every 12 months will ensure expensive repairs and maintenance caused by pushing anti foul coating beyond recommended times are reduced. Excessive growth becomes difficult to remove once the barnacles have adhered to a boats hull and in particular fibreglass boats can be damaged, causing costly repairs.

Surface Preparation:

It is important to ensure that the surface is free from previously applied flaking / eroding anti foul coatings and is clean and free from marine growth and debris. Surface must be clean, dry, and in sound condition. Remove all oil, dirt, marine growth and foreign material from the surface. Controlled high pressure washing and wet sanding as necessary is recommended to remove all old anti foul paint and leached layer if any is removed. For best results it is recommended the surface is washed down with fresh water and cleaned with Nanoman Pre- Cleaner or rubbing alcohol.

Nanoman Marine Anti Foul is non-eroding so it can be applied over itself each season.
Application:

Once the surface preparation has been completed, the Coating must be applied by HVLP spray, at suggested nozzle size, pressure. The Coating will start to dry after this time and become hard to apply. Do not decant already extracted product back into the original container.

Wear gloves and a mask using Nanoman Marine Anti-Foul. For further specifications on this, please refer to Safety Data Sheet.

After applying, make certain the surface will remain completely dry for at least 5 hours after the anticipated completion time. If there is high wind, this will affect the quality of the finish, wind can disrupt the spray pattern from your HVLP and it can contribute to contamination of the finish from blowing dust. Take necessary precautions against natural elements.

If applying with a paint brush or roller, completely cover the surface by applying Nanoman Marine Anti-Foul. Do note however, that product usage will increase while applying with paint brush or roller.

When treating rough or textured surfaces HVLP spraying is recommended. Apply one coat evenly; thoroughly coating the surface being treated.

Spraying: Shake the Nanoman Marine Anti Foul Coating contents thoroughly. Make certain to re-shake every 15-20 minutes to ensure the nanoparticles are re-suspended to ensure proper performance of the Nanoman Marine Anti Foul Coating.

Begin application using a pump sprayer or airless sprayer at 60 psi. or less with a nozzle of 0.07” – 0.1”. Spray the surface in a cross-pattern; “left to right” at a medium pace approximately 30 centimetres from the surface to ensure an even coverage. This will provide sufficient coverage and will help prevent voids in the surface.

Rolling: Shake the contents thoroughly. Make certain to re-shake every 15-20 minutes while using to re-suspend these nanoparticles to ensure proper performance of the coating.

Pour the Nanoman Marine Anti-Foul Coating into a roller pan and completely saturate the roller with the coating. The coating should be applied thinly, but you also need to ensure that you have fully covered the surface. For smooth surfaces, use a high density, ultra smooth, white foam roller and apply a coat in a cross-pattern; “left to right”, then “up and down” as quickly as possible, making sure there is always plenty of material on the roller so no spots are missed. Do not over work the coating; just move the wet edge over the entire surface as quickly as possible due to how quickly the coating dries.

Brushing: Shake the contents thoroughly. Make certain to re-shake and re-suspend these nanoparticles every 15-20 minutes during use to ensure proper performance of the coating. Nanoman Marine Anti-Foul should be applied thinly, but you also need to
ensure that you have fully covered the surface. Use a high quality bristle brush for best finish results. Apply the coat in a cross-pattern; “left to right”, then “up and down” as quickly as possible, making sure there is always plenty of material on the brush so no spots are missed. Do not overwork the coating, move the wet edge over the entire surface as quickly as possible due to how quickly the coating dries.

**Caution:** If using spray application method in an enclosed space, make certain to tent off the area being sprayed with plastic tarps to avoid spray dust from travelling and contaminating other surfaces with overspray.

Exercise caution before opening the bottle. Due to storage times and transportation, gases can develop inside the bottle, making it pressurized. It is recommended to let the gases vent out prior to usage, as it can have a coke-bottle effect. Please wear gloves and a mask with safety goggles during this process.

Ensure appropriate ventilation for all enclosed areas and wear approved respiratory protection. Never spray near any open source of ignition such as pilot light flames, or anything that may spark, as this may cause ignition and explosion of the fumes and vapours. Wear butyl-rubber gloves and other skin protection to avoid skin contact. Chemical safety goggles or splash shields are also recommended.

**Drying Time:**

Touch dry: 24 hours  
Completely dry: 48-96 hours  
Ensure that the surface remains dry during this time frame.  
Fully Cured: 7 days

**Work Interruptions:** Upon drying, treated surfaces can appear similar to untreated surfaces. It is possible areas could remain untreated if work is interrupted. It is advisable to stop application on an obvious marker so the applicator can begin where the application had previously ceased.

**Clean Up:** Clean tools and equipment with n-butyl acetate immediately and flush thoroughly after completion of the application. Once product dries in your spray gun, brush or roller it cannot be cleaned by solvents.

**Packaging:**

1 litre pack
Storage stability:

Unopened original containers can be stored for 6 months.
Mixed product cannot be stored.
Recommended storage and transport temperature +3°C to 30°C

Material Data

<table>
<thead>
<tr>
<th>Basis</th>
<th>SiO₂ – polymer with extra hardening component</th>
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<tbody>
<tr>
<td>Look</td>
<td>yellowish liquid</td>
</tr>
<tr>
<td>pH-Value</td>
<td>~ 4,5</td>
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<tr>
<td>Active Agent</td>
<td>~10 Gew. %</td>
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<tr>
<td>Viscosity (DIN 53211)</td>
<td>49 sec</td>
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<tr>
<td>Thinning</td>
<td>ready to use formula, thinnable with ethyl acetate/butyl acetate</td>
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<tr>
<td>Application</td>
<td>25-35 ml/m² (depending on surface/application)</td>
</tr>
<tr>
<td>Storage</td>
<td>Min. 6 Months (Storage temp. +5°C - +25°C. Store dark and frost resistant)</td>
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<tr>
<td>Coverage</td>
<td>25-35 ml/m²</td>
</tr>
<tr>
<td>Durability</td>
<td>Recommended for best protection - 1 Season or 1 Year</td>
</tr>
<tr>
<td>Marine Safety</td>
<td>Application in Dry Dock away from water. Formed layer is safe as SiO₂ is inert</td>
</tr>
<tr>
<td>Surface suitability</td>
<td>Plastic, Fiberglass, Metal, Gel Coat, Oil Painted surfaces</td>
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IMPORTANT NOTICE TO CUSTOMERS

Since the use of this product is beyond the control of either seller or manufacturer, their only obligation shall be to replace any quantity of product that is proven defective. They cannot assume any risk or liability in excess of the purchase price of the product itself, which does not include labour or any consequential damages from the use of this product. Determining the suitability of this product for any intended use shall be solely the responsibility of the user. The information given in this sheet is not intended to be exhaustive. The information contained in this sheet is liable to modification from time to time in the light of experience and our policy of continuous product development.