



NACHHALTIG SEGELN
nichts als Wellen im Kielwasser



ANTIFOULINGFOLIEN
biozidfrei. abwischbar. nachhaltig.

Fouling Release Films

Brief Introduction

In a nutshell

Sailors are strongly connected to nature and contribute to its preservation. But sailing is not yet completely sustainable. For example, our diesel engines produce harmful exhaust gases, and our fouling release coatings discharge environmental polluting biocides.

Fouling protection without biocides is possible and has been successfully tested for many years. We rely on antifouling films that keep fouling away from the underwater hull due to their smooth surface structure without biocides. The maintenance effort is minimal, and our craftsmanship know-how guarantees you 10 years of durability.

We would be glad to visit you at your club / home port to present our fouling release films in a hands-on practical way.

We look forward to your feedback.

How sustainable is sailing?

For most sailors, sailing means a calm and relaxed way of traveling. We move amid a great nature and experience it directly.



We are proud of travelling in an environmentally friendly way. This is largely true. We move with the power of wind, and we consume hardly any fuel. Our boats and equipment last for decades, and our hobby does not cause mountains of waste.

The Challenge

Nevertheless, sailing in its current form is not completely sustainable.

When there is no wind and during harbour manoeuvres, we usually use a diesel engine. This generates noise, stench and harmful exhaust gases.

Living organisms want to settle on the underwater hull of our boats. This fouling in the form of algae, barnacles and mussels sticks to our hulls, spreads and slows down the boat significantly.

So we use antifouling to prevent the spread of these organisms.

So far, the underwater hull has usually been painted annually with a biocide-based coating. The biocides (copper, zinc and other chemicals) contained in this coating prevent the fouling from growing and kill it.

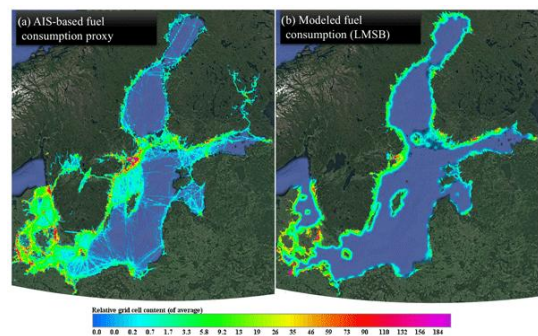
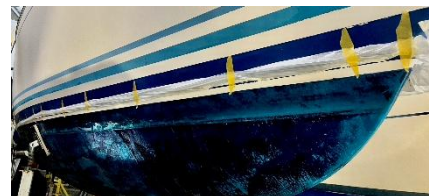
However, the effect of antifouling is not limited to our hull locally. Unfortunately, around 60 tons of copper and 50 tons of zinc are released into the Baltic Sea alone every year from the antifouling paints of the pleasure boats. These biocides cause environmental and health damage to all living organisms in the sea. It even reaches our dinner plates via the food chain.

Many governments recognize this problem and are increasingly restricting the use of biocide-based fouling release paints.

The Solution

Sustainable sailing therefore means protecting your boat against fouling without using biocides.

One possibility is to use fouling release films, which keep the fouling away purely physically due to their smooth surface alone, instead of using chemical biocides.



The result

First, the marine organisms will settle on the surface of the foils. However, due to the smooth surface structure, they cannot adhere to the surface and will be washed away by the water current on the next trip.

Fouling release films do not use biocides and are therefore harmless to the environment.

Once applied, the films will last at least 10 years. The annual maintenance effort is limited to about 30 minutes to wipe off the algae film with a wet sponge after taking the boat out of the water, instead of spending 1-2 days painting the antifouling.

In addition, the annual costs for the antifouling coating are eliminated.

Finally, fouling release films also improve the performance of your sailboat. Due to the smooth surface, the boat glides more easily through the water than with the annually growing crater landscape of the antifouling paint.



Project description

The refit of a boat from the old antifouling paint to new fouling release films is typically carried out in 4 phases:



First, the old antifouling must be removed. Various methods, such as pickling, scraping and sanding, are combined. In the end, only a firm primer layer may remain on the gelcoat.



Then, a new epoxy resin-based primer is then applied in several layers to form a strong foundation with a water barrier.



Next, the fouling release films are bonded to the hull in several parallel strips. Neighbouring lanes are slightly overlapped and then perfectly laid edge to edge with a zero cut.



Finally, these edge to edge seams are permanently sealed with a biocide-free hydrogel.

Craftsmanship expertise

Our team has in-depth expertise, craftsmanship and years of experience in dealing with fouling release films.

As an owner, you can support us in your project with appropriate preparatory work.

For example, you can remove the old antifouling paint on your own and then apply the new primer under the guidance of our experts.

The application of the fouling release films and the sealing of the seams is always carried out by our experienced craftsmen.



Our process combines several artisanal refinements, which guarantee excellent overall quality:



We make sure that in highly stressed areas (e.g. at the bow) there are only entire panels without seams.



We apply the lanes of the film in the longitudinal direction of the passing water (and not transversely to it).



We model the two-dimensional foils by heat, upsetting and stretching in such a way that they adhere smoothly, without wrinkles and without tension to the three-dimensionally rounded surface.



The zero cut allows for a smooth, watertight and stress-free transition between two lanes.

The final sealing of the seams keeps the hull dry and protects the film against the detaching force of the water current.

These details guarantee perfectly adhesive and waterproof sheets of foil that do not create an obstacle to the flow of water and therefore do not peel off.

Care and warranty

The fouling release films do not require intensive cleaning. It is sufficient to gently hose off the algae film from the foils after taking the boat out of the water and to wipe it off with a wet sponge. This process takes about half an hour.



We ask our customers to check the sealing of the seams once a year for the first 3 years and to reseal any defects. We will provide you with the material for the sealing.

We can professionally repair any mechanical damage (e.g. after a collision).

This guarantees the durability of the fouling release films for 10 years.

Test results

We continuously monitor the effectiveness of our films under real conditions by exposing several test plates to underwater fouling pressure at various points in the Baltic Sea all year round.

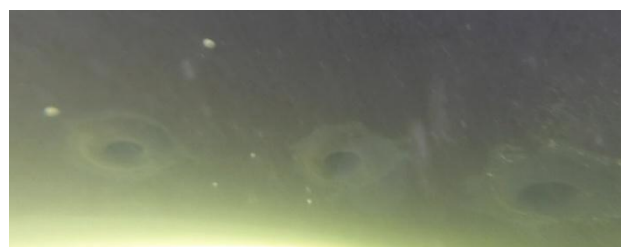
On request, we will provide you with the exact coordinates of the test plates so that you can see for yourself on site.



Our customers confirm the continued effectiveness of the fouling release films even after several years. The first sailboat with our application is now (in 2026) in its ninth season with the original foiling.



Josef Horber documents the development of the fouling and the effectiveness of the fouling release films on his sailboat Windsong and publishes the results on his homepage www.sustainable-sailing.com .



Learn more

Have we aroused your interest? We will be happy to inform you about further details and interesting news.

The homepage www.sustainable-sailing.com presents innovative solutions on how sustainable sailing can succeed. Today, the focus is on the electrification of sailboats and on the use of fouling release films.

On our homepage www.antifoulingfolien.de we provide further information about fouling, antifouling and biocide-free fouling release systems.

Follow our activities on social media at:

<https://www.facebook.com/antifoulingfolien>

<https://www.instagram.com/antifoulingfolien.de/>

Do not hesitate to contact us for any questions you may have. We look forward to your feedback.

We would be happy to come to you to present our fouling release films in your sailing club or home port in a practical way.

Here you can describe your requirement with just a few clicks, and we will then create a free, non-binding and personal offer for you:

<https://antifoulingfolien.de/angebot-anfordern/>

We look forward to hearing from you.

Jan Jelinek



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Josef Horber



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