Hempel’s Biocidfrie produkter.

Biocide Free Antifoulings

Ecopower

VIEW PRODUCTS

Hempaspeed TF

VIEW PRODUCTS

Silic One Fouling Release

VIEW PRODUCTS

Hempel's Silic One antifouling solution

The most efficient

Available in shades:

- Red
- Black
- Blue

- 2 year — Fouling protection
- Biocide and copper free
- Easy to apply & maintain
- Works on propellers
- Fuel saving

SilicOne – det virker!

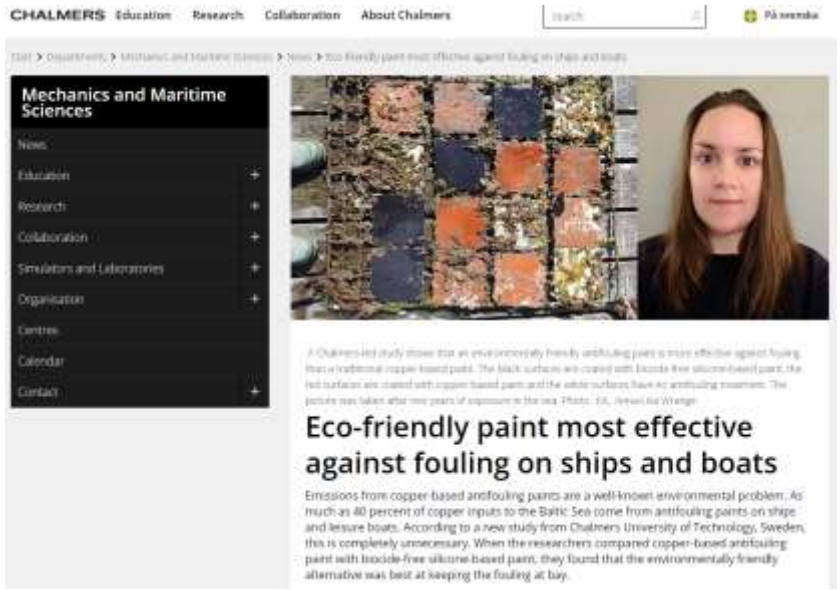
Practical Boat Owner
UK Magazine:


ANTIFOULING ON TEST

Hempel Silic One

Best on test

Chalmers
Universitet
Sverige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Eco-friendly paint most effective against fouling on ships and boats

Emissions from copper-based antifouling paints are a well-known environmental problem. As much as 40 percent of copper inputs to the Baltic Sea come from antifouling paints on ships and leisure boats. According to a new study from Chalmers University of Technology, Sweden, this is completely unnecessary. When the researchers compared copper-based antifouling paint with biocide-free silicone-based paint, they found that the environmentally friendly alternative was best at keeping the fouling at bay.

Abstract

To combat unwanted fouling on immersed hulls, biocidal antifouling coatings are commonly applied to vessels trafficking the Baltic Sea. Here, the efficacy, environmental sustainability and market barriers of silicone foul-release coatings (FRCs) was assessed for this region to evaluate their viability as replacements for biocidal coatings. Coated panels were exposed statically over a 1 year period at three locations in the Baltic Sea region to assess the long-term performance of a biocide-free FRC and two copper coatings. The FRC was found to perform equally well or significantly better than the copper coatings. Even though most silicone FRCs on the market are biocide-free, a review of the literature regarding toxic effects and the identity and environmental fate of leachables shows that they may not be completely environmentally benign, simply for the lack of biocides. Nonetheless, FRCs are substantially less toxic compared to biocidal antifouling coatings and their use should be promoted.

Hempaspeed TF

True Blue 30390

Ultimate White 10101

Black 19990

Grey 10430

750 ml

2,5 ltr

Pain(t)less

TCOL

30. Sept 2024.

Nu bliver det let at være bådejer!

A radical **new** and **innovative** solution!

- ✓ **Recharger** for Hempel's silicone systems.
- ✓ Additional reason why to choose Silic One System
- ✓ **No more painting,** just apply Infinity on top of Silic One
- ✓ Regular boat maintenance is much easier, faster and cost effective!
- ✓ Less or no dependency on the weather
- ✓ Introducing a new level of Sustainability to the Yachting community.

Forårsklargøring
Tips & Tricks

Sikkerhed:

- Personligt sikkerhedsudstyr:
  - Handsker – benyt handsker beregnet til formålet – ikke havehandsker!
  - Hvis der kommer maling på handskerne, skift handsker!
  - Benyt briller.
  - Benyt heldækkende tøj, f.eks keddeldragt.
  - Benyt åndedrætsværn under slibning.
- Andet:
  - Benyt støvsuger, på slibe/skrabe værktøj, beregnet til formålet.
  - Bortskaf slibestøv, maling rester som farligt affald.

- **Overhold gældende regler, benyt kun bundmaling som er godkendt til formålet!**

Hempel's Silic One tips og tricks:

- Læs teksten på dåsen, eller alternativt på www.hempelyacht.dk
- Overhold temperatur- og luftfugtighedsintervaller.
- Vask båden grundigt med Preclean før og efter slibning. Skyl grundigt med ferskvand og lad båden tørre.
- Påfør nok maling, gælder primer såvel som bundmaling. Benyt Hempel's malingberegner som findes på Yacht Paint Calculator
  - Hvis Du har maling tilovers – så er der påført for lidt.
- Overhold overmalingsintervaller, minimum såvel som maksimum.
- Rengør ruller og pensler grundigt inden brug – urenheder i malingfilmen giver begroning.
- Åben kun en dåse ad gangen. Vær opmærksom på 1 times potlife.
- Dåser der er åbnet skal kasseres efter brug – Kan ikke gemmes til næste dag/år.
- Check holdbarhedsdato på emballagen. (18 md efter produktionsdato).

- ***HUSK! - Intet resultat bliver bedre end forarbejdet.***

Er de biocidfrie produkter gode nok?

2023

JA!

Eksterne resultater:

Chalmers University research (2022)

CHALMERS
UNIVERSITY OF TECHNOLOGY

Miljövänlig båtbottenfärg mest effektiv mot påväxt

- ✓ This study shows that an environmentally friendly antifouling paint is **more effective** against fouling than a traditional copper-based paint
- ✓ The study was carried out at **three sites** in the **Baltic Sea** region and the Skagerrak and the results have been published in the scientific journal *Marine Pollution Bulletin*

Research done by Maria Lagerström from Chalmers University together with colleagues from the University of Gothenburg and the Swedish Environmental Institute IVL

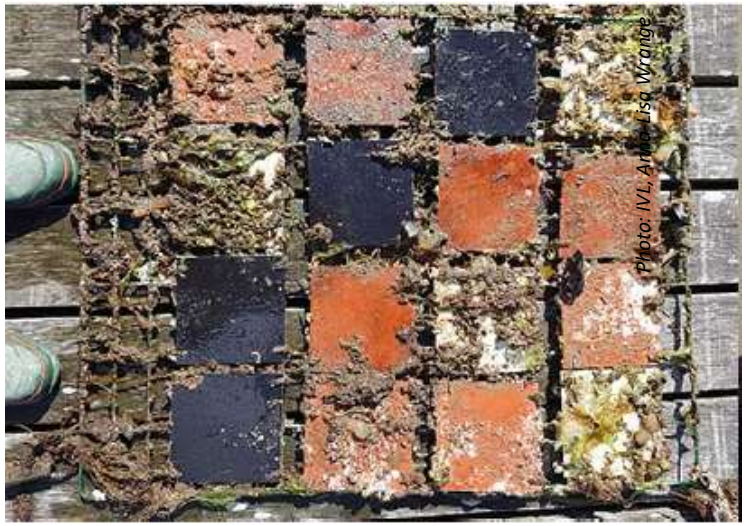

Photo *taken after 2 years of sea exposure*:

- **black** surfaces coated with biocide-free silicone-based paint
- **red** surfaces coated with copper-based paint
- white surfaces (full of fouling) have no antifouling treatment

Vene magazine (2023), Finland

- ✓ Independent biocide-free antifouling test
- ✓ **Hempel's Silic One positioned on the first, Hempaspeed TF the second place,** outperforming all other biocide containing products

Practical Boat Owner magazine UK(2022), UK

- ✓ Big independent antifouling test included 8 antifouling products
- ✓ The aim of the test was to compare traditional copper-based annual antifoulings with innovative, longer lasting and more environmentally sensitive alternatives
- ✓ Hempel's Silic One rated **BEST ON TEST**

Hempel Silic One

TYPE Biocide-free medium term antifoul
PREPARATION Hempel Light Primer 4 coats, Silic One Tie-Coat 1 coat
INITIAL COST £1,045
ANNUALISED COST £233

Silic One had the most stringent set of application instructions of our group. It's strongly advised to apply it on to a stripped hull but, if the existing coating is in good order, a barrier coat of Hempel's Silic Seal will enable the switch.

Commencing with Hempel's two-component Light Primer, the bare surface must be built up with a minimum of four thin layers. Next, a tie-coat must be applied while the last coat of primer is still tacky. After two hours the first of two coats of Silic One can be applied with a minimum of eight hours in between, the last of which has a 16-hour minimum drying time before immersion.

If it sounds like an involved process that's because it is, taking nearly three days from start to finish once drying intervals have been factored in. However, the results speak for themselves. After seven months, Silic One has performed the best of all our group, with no signs of weed or shell growth and the least amount of surface slime. It also wiped off exceptionally easily. An impressive result for a biocide-free antifouling.

Because it has a recommended lifespan of two years before topping up with one fresh coat of Silic One, the high initial application cost is offset over time.

Its six-year annualised cost comes in lower than all other products on test except Hempel Tiger Xtra 7100 and Coppercoat if you exclude the cost of shotblasting.

2022 Practical Boat Owner BEST ON TEST

BÅD Magasinet (2020), DK

- ✓ Independent biocide-free antifouling test
- ✓ 12 test areas, 7 months
- ✓ Proved that biocide-free paint can be an alternative to biocide containing antifoulings
- ✓ Silic One has the same antifouling effect as the tested traditional antifoulings