

# SUBSEA

PROTECTION AND PERFORMANCE

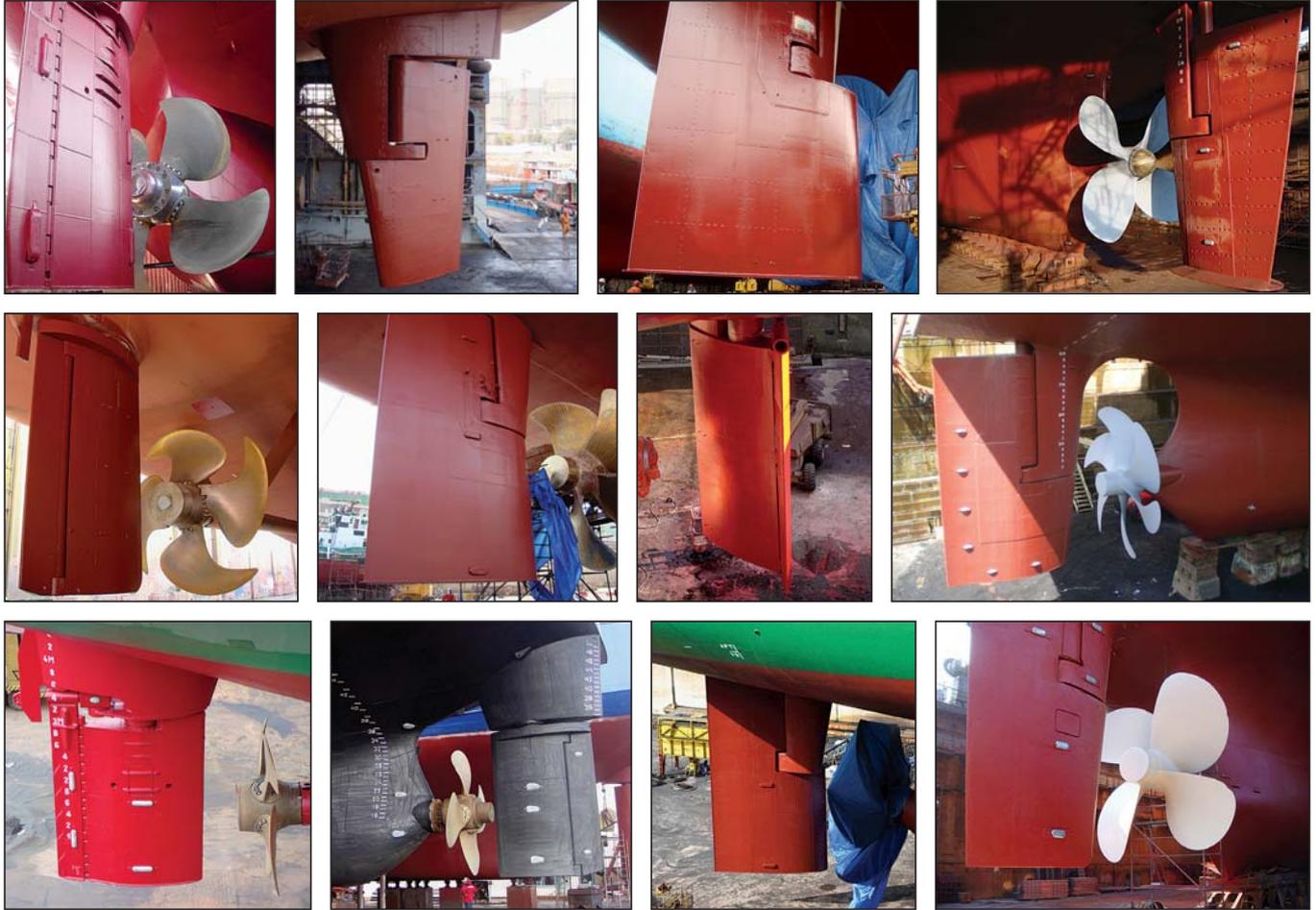
# NEWS

LETTER



VG-Shipping applies Ecospeed to second EcoCoaster .....	3
Ecospeed application on exhaust scrubber of ro-ro vessel in Sweden .....	7

# The only coating that offers lasting rudder protection



**E**coshield gives a very thorough and lasting defense against cavitation and corrosion damage for a ship hull's entire service life.

The coating equally provides the rudder with an impenetrable protective layer while its flexibility enables absorption of the forces that are produced by cavitation. This prevents the damage normally caused

by this phenomenon.

Without proper protection against cavitation and the resulting erosion and corrosion damage, the financial consequences can be severe.

By removing the existing paint layers and applying Ecoshield on the rudder we can break the never ending cycle of painting, suffering damage, having

to perform extensive repairs in drydock followed by a full repainting, again and again.

With an Ecoshield application no full repaint will be needed during drydocking. Ecoshield is guaranteed for ten years. At the most, minor touch-ups will be required.

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**ECOSHIELD®**  
THE DIAMOND STANDARD IN STEEL PROTECTION

# VG-Shipping applies Ecospeed to second EcoCoaster

**V**G-Shipping, the ship management arm of the Meriaura Group has selected Subsea Industries' non-toxic Ecospeed hull coating for its second environmentally-safe cargo ship newbuild.

The Royal Bodewes built *Mirva VG* will join the first of class *Eeva VG*, which will be delivered in September following outfitting in Papenburg, Germany. The vessels will be owned by Gaiamare Oy, a Meriaura Group company.

Both 4700dwt EcoCoasters have now been coated with the game-changing Ecospeed hard coating above and below the water line in VG Shipping's red and blue livery.

Ismo Saaros, Director, Project Management, VG-Shipping, explained:



*The hull of Mirva VG has been protected with Ecospeed.*

“We wanted to produce the cleanest, most environmentally-efficient coasters of their class so we specified several ‘green’ solutions, including a ballast water management system, a Selective Catalytic

Reduction system for reducing NOx emissions and the Ecospeed hull coating.

“We didn’t want to use a traditional antifouling system because of the



*VG-Shipping selected Subsea Industries' non-toxic Ecospeed hull coating for Mirva VG, its second environmentally-safe cargo ship newbuild.*



*VG Shipping's Eeva VG also has an Ecospeed coating.*



*The thruster tunnels and rudders of both EcoCoasters were coated with Ecoshield, which provides a lasting protection for all running gear.*

chemicals that they contain and found the Ecospeed solution was the most effective coating system for reducing drag. With a hard coating we are also permitted to clean the hull underwater in the ports where we operate without damaging its waters and sediments.”

The environmental and hard wearing performance of the coating were also aspects flagged up by Robert Jan Steenberg, Project Manager at Royal Bodewes.

He said: “Since Ecospeed is not a biocide-containing antifouling it is more environmentally-friendly and because these vessels will operate in the Baltic we needed a coating suitable for sailing in ice. It lasts longer.”

Commenting on the application of the coating, Steenberg, added: “It was the first time the yard had applied Ecospeed on this scale, to a complete hull, but application was very straightforward.



*Ecospeed is applied in two identical layers.*



*Application of the second layer.*



*The final touches of the application of Mirva VG.*

“Applied under Subsea Industries’ supervision, the result is very good: the preparation, the blasting and how it looks gives us confidence that this coating will perform exceptionally well.”

Built to the ‘Cleanship’ class notation, the VG EcoCoasters, designed by Finland’s Foreship and Aker Arctic, are part of a fleet expansion programme to strengthen Meriaura Group’s position in the market for vessels of this class.

Each vessel features a hull form, systems and technologies designed to substantially reduce the impact of operations on the marine environment.

The vessels propulsion arrangement, which incorporates a power take-in booster system to reach ice class engine power, has been optimised for slow steaming operations at speeds between 8 and 9kts, although main engines can attain a top speed of 10.5kts in open water conditions. The fuel-efficient ice-class 1A vessels are powered by an ABC 8DZC dual-fuel engine, capable of running on marine gas oil (MGO) and bio-fuel produced at Meriaura Group’s refinery in Uusikaupunki.



*No repaint will be needed during future drydockings.*

Manuel Hof, Production Executive and NACE Coatings Inspector at Subsea Industries, said: “We are delighted to have added to VG-Shipping’s exceptionally “green” cargo vessels with our Ecospeed coatings. VG-Shipping specified Ecospeed at the design stage because of the coating system’s proven performance.

“*Mirva* and *Eeva* will not have to be coated again during the vessels

operational life time, saving the company thousands in paint costs and drydocking fees, whilst preventing damage to the marine environment through the emissions of toxic chemicals found in conventional soft coatings.”

Subsea Industries Executive Director Boud Van Rompay added: “With these vessels operating in arctic waters, the owner required a coating capable of withstanding ice impact

and highly abrasive waters. Polar trading is one of the biggest challenges for coatings manufacturers, since abrasive waters scratch and scrape conventional anti-fouling paints resulting in hull recoats after just one season. Subsea Industries’ hard coatings are developed to last even in the harshest of environments.”

Referring to Interscan Schiffahrt’s 3000dwt ice-class cargo vessel *Patriot*, which was coated with Ecospeed in 2005 after the owner found its traditional hull coating was lasting just two seasons, Van Rompay revealed that after ten years’ ice operation the Ecospeed hull coating remained intact. “When *Patriot* drydocked in 2015, besides some minor mechanical damage which was easily touched up, the coating was immaculate.” ■

**ECOSPEED®**  
SHIP HULL PERFORMANCE TECHNOLOGY



*Both EcoCoasters have now been coated with the game-changing Ecospeed hard coating above and below the water line in VG Shipping’s red and blue livery.*

# Ecospeed application on exhaust scrubber of ro-ro vessel in Sweden

**E**arlier this year the inside of the scrubber of a ro-ro vessel was coated with Ecospeed in Landskrona, Sweden. The scrubber is located in one of the ballast tanks of the vessel. A lasting, chemical resistant coating was needed that could withstand the process of filtering out the hazardous pollutants of the exhaust gasses.

Exhaust scrubbers are systems that filter out all harmful toxins from exhaust gasses of marine diesel engines. This scrubber removes nitrogen oxides, sulfur oxides, hydrocarbons, heavy metals, carbon monoxide, soot and ashes. As a result no pollutants are discharged into sea. This minimizes the environmental footprint and impact of navigation in ports and coastal areas.

Several benefits make Ecospeed the perfect choice as coating for the interior of the scrubber.

1. Ecospeed lasts the lifetime of a vessel. No repaints will need to be scheduled during future dockings of the ship. This saves on time and money.
2. Ecospeed is a TBT-free, copper-free and biocide-free solution. Independent research proved that the coating is 100% toxin-free and that there is no negative effect on the water quality or the marine environment at any point of its application or use.



*The exhaust of the scrubber system seen from the outside.*

3. Ecospeed has been given a B1 classification by Det Norske Veritas AS after testing the coating's suitability as a ballast tank coating. B1 is the superior grade in a six grade classification system.
4. Ecospeed is highly chemical resistant. Taking into account the nature of the process taking place inside the scrubber, this was essential for the customer.

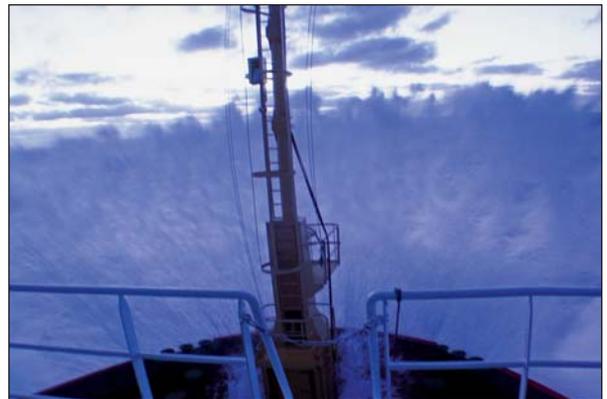
Because of the tightening regulations on emissions in the shipping industry, the installation of an exhaust scrubbers system becomes increasingly widespread. A durable coating to protect the inside of these scrubbers is needed. Ecospeed fits in seamlessly with the environmental idea behind the systems. ■



*Application of Ecospeed on interior of scrubber system.*

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SHIP HULL PERFORMANCE TECHNOLOGY

# SUBSEA INDUSTRIES



**S**ubsea Industries NV, was founded in 1983 specifically to take care of the design, development and marketing of what has become an evolving line of underwater hull and propeller

cleaning equipment as well as the line of hard hull coating systems.

All products produced by Subsea Industries have the same goal in

mind: To keep the underwater part of your vessel in the best possible condition for its entire lifetime at the best possible performance.

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