

Coatings Tech Development

Tech advances from coatings and corrosion control manufacturers are pivotal in maintaining the health and integrity of vessels, but increasingly to improve efficiency and fuel economy, as well as maintain the health of the oceans. Some recent developments from leaders in the sector.

Hempel launched two premium antifouling coatings, Globic 9500M and Globic 9500S, which according to the manufacturer offer a up to a 2.5 percent reduction in speed loss, ultimately helping to save fuel and lower CO2 emissions.

Hempel's patented Nano acrylate technology is the strength behind the Globic range and is designed to provide a fine polishing control mechanism to bring the integral biocides to the surface at a stable rate ensuring a clean hull. With a strong binder and biocide package, Globic 9500M and Globic 9500S are designed to excel, particularly when slow steaming.

"Globic 9500M (M for maintenance) is designed to protect against slime as well as soft and hard fouling in all conditions," said Henrik Dyrholm, Global Product Manager, Hempel A/S. "Globic 9500S (S for static) is designed to protect against hard-fouling even during extended outfitting periods."

Since the Globic range was launched in 2005, more than 6.6 million gallons have been delivered encompassing more than 5,000 vessel applications.

In addition, the patented microfibers incorporated in the paint give Globic 9500M and Globic 9500S a mechanical strength to avoid cracking and peeling. Globic's unique technology allows it to

start working as soon as the hull meets the water for full and immediate antifouling protection, making it highly efficient even for slow steaming and long idle periods.

I-Tech AB was recently recognized as a technology innovation leader in the European marine biocides market, a recognition courtesy of its 2017 Technology Innovation Award from Frost & Sullivan.

Based on its recent analysis of the European biocides market, Frost & Sullivan found that the long-term environmental and economic benefits of using I-Tech's bio-repellent antifouling ingredient, Selektepe, make it an innovative technology in the marine biocides market. According to Frost & Sullivan, the Selektepe solution has the potential to induce transformative change in the marine industry. "I-Tech AB is one of the few companies in the European market to offer a sustainable marine biocide technology at cost-competitive prices on a commercial level," said Afia Alapitchai, Frost & Sullivan research analyst.

Selektepe is an organic, non-metal compound with unique marine antifouling application. Its bio-repellent mode of action inhibits barnacle settlement on ships' hulls by stimulating the barnacle larvae's swimming behavior with reversible effect. It is characterized by high efficacy at extremely low concentrations in a marine coating (0.1% w/w), ultra-low leaching, and flexibility to boost copper-based paint formulations or replace copper completely.

Selektepe repels barnacles even when ships are idle, allowing fuel saving claims made by coatings suppliers to cover the ship's entire operational cycle.



Antifouling: Hempel Globic 9500

The first branded marine coating products to feature Selektepe were launched by **Chugoku Marine Paints, Ltd.** (CMP) in 2016, the SEAFLO NEO range of antifouling products. The latest product, launched in June 2017, was CMP's SEAGRANPRIX 880HS+, which is based on hydrolyzing technology and can be applied to deep sea-going vessels trading worldwide in-service periods for up to 90 months.

Subsea Industries has begun actively marketing its Ecospeed coating in the luxury yacht market following the introduction of stringent regulations aimed at reducing the impact of leisure craft operations on the marine environment.

The Antwerp-based coatings specialist will market its non-toxic hard coating initially in the U.S., where there is increasing scrutiny of copper-based antifouling systems on the hulls of all types of pleasure boats.

"There is a momentous drive to remove copper from the antifouling coatings typically used on the hulls of pleasure yachts" said Kelly Townsend, Subsea Industries' US-based Sales Manager.

"Since our Ecospeed product contains zero chemicals and is completely non-toxic to marine life, it has the potential to meet the yacht sector's requirement for a clean, reliable and cost-effective alternative to copper-based coatings. Ecospeed hulls can be cleaned by pressure washing but the best way is to clean in-water using mechanical brushes as this results in a hydrodynamically smoother surface which is harder to foul and reduces fuel consumption."

Washington became the first state to adopt a no-copper paint rule. And from 1 January 2018, no new recreational boat up to 65 feet can arrive with copper on its hull and no copper can be sold or applied to a boat after 1 January 2020.



I-Tech Awarded for Innovation

"I-Tech AB is one of the few companies in the European market to offer a sustainable marine biocide technology at cost-competitive prices on a commercial level," said Afia Allapitchai, Frost & Sullivan research analyst. To the left Dr. Oliver Weigenand – I-TECH COO, receiving the Frost & Sullivan Award.