

TundRA 3200 icebreaking tugboats now fully protected with our coating systems

Two Robert Allan Ltd. designed icebreaking tugs constructed at Turkey's Sanmar Shipyards have been protected with our coating system. The underwater hulls of *Selene* and *Helios* were coated with Ecospeed, the topsides with Ecolast and the azimuth thrusters with Ecoshield.

Located in Tuzla and Altinova, Sanmar Shipyards has been producing tugboats and providing services for numerous countries around the world for four decades. The company celebrates its 45th year anniversary this year. More than 230 tugboats benefiting from all this wealth of experience are presently in operation on international seas. They build vessels at its two custom-built, state-of-the-art yards located in Turkey's shipbuilding heartland.



Application of first Ecospeed layer on icebreaking tug Helios.



Application of Ecolast on m/v Helios.

The pair of 67 tonne bollard pull ice class ASD tugs include a number of special features to cater for arctic conditions. They are specifically designed for the year-round service in the Baltic Sea and particularly in the Northern part of the Gulf of Bothnia which is covered with heavy ice in wintertime. They are capable of performing multiple tasks including escort, ship assist, icebreaking

and ice management and open sea towing.

A full range of coating systems

Our hard-type coatings were selected amidst strong competition because of their proven performance in polar waters.



Application of the keel block areas blends in seamlessly with the rest of the coating.



Icebreaking tug Helios after completion

Experience has shown that **Ecospeed** stays on the hull longer and resists the ice far better than the most generally used specialized ice coatings. Ecospeed remains bonded to the ship's plates even as they flex and bend under ice pressure and impact.

Ecospeed is a certified abrasion resistant ice coating. Owners are allowed to reduce the thickness of the steel of the ice belt if this area is coated with Ecospeed. This produces a significant financial benefit during newbuild projects and an increased cargo capacity.

An ice-going hull coating must have low friction characteristics in order to be fuel efficient. But it is not enough for the hull to be smooth and have low



Ecospeed application on m/v Selene.



The topside of m/v Selene was coated with Ecolast.



M/V Selene after completion.



The azimuth thrusters of both vessels were coated with Ecoshield.

friction at launch. It must stay that way for the life of the vessel. Ecospeed will hold up and will not be damaged in the ice and so will remain smooth for the life of the vessel, thus saving fuel. Even if minor repairs are needed in drydock the original quality of the coating remains intact.

Because the topside of these tugs also needed extra protection against ice, **Ecolast** was applied to this area of the vessels. This coating is ultraviolet (UV) light resistant and preserves its color while at the same time offering the corrosion and abrasion protection our coatings are known for. Regular coatings will quickly lose their original color when exposed to the ultraviolet radiation present in sunlight.

The azimuth thrusters of both vessels were given a lasting protection with our **Ecoshield** coating. This was done by the OEM prior to delivery. Ecoshield offers permanent protection against cavitation damage for rudders, bulbous bow, stabilizer fins, thruster nozzles and other underwater ship gear which needs special protection from corrosion.

Conclusion

Many applications on ice going hulls have shown that our coatings can withstand the impact of ice for many years on end, proving their superior strength and durability.

Contact us for further information on how you can give the same complete and lasting protection as these two icebreaking tugs to your (ice-going) vessels.

Subsea Industries NV
 + 32 3 213 5318
 info@subind.net
 www.subind.net