

Ice-strengthened research vessel given lifelong Ecospeed protection

One year after the bow area was coated with Ecospeed, the rest of the underwater hull of *Royal Research Ship (RRS) James Clark Ross* was given the same treatment in Frederikshavn, Denmark. The ship is one of two ice-strengthened research vessels operated by British Antarctic Survey (BAS).

The other, *RRS Ernest Shackleton* has been sailing with Ecospeed on her hull for six years without requiring repainting. Despite battering its way through ice up to 2.5 meters thick with a high content of gravel and volcanic lava adding to its abrasiveness, the hull coating remains virtually intact and undamaged. This is in strong contrast to when the *Shackleton's* hull was still covered with a conventional ice-going underwater hull coating and almost the entire hull was practically stripped to bare, unprotected steel in between dockings.

This excellent result led BAS to coat the bow area of *RRS James Clark Ross* with Ecospeed last year. Coating the entire hull was not an option during the docking in 2014. The owners however, absolutely wanted to start protecting their vessel as soon as possible. *RRS James Clark Ross* can steam at a steady two knots through level sea ice one meter thick. The bow area has to endure a constant impact with the ice and needs the best possible protection. For this reason they decided to have Ecospeed applied on those areas of the hull first. In August of this year the rest of the hull was coated.



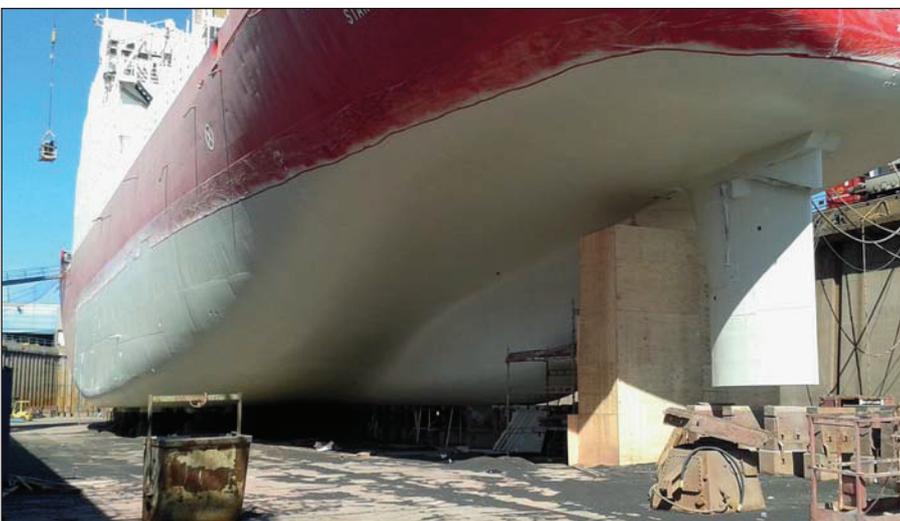
In 2014 the bow of RRS James Clark Ross was coated with Ecospeed to protect the area against impact with ice.



Surface preparation of the stern area in August 2015.



Application of the first layer of Ecospeed



Ecospeed is applied in only two, identical, layers.

During this yearly scheduled docking of the vessel the bow area was shown to still be in excellent condition despite the impact with thick ice during its expeditions.

Ecospeed low friction coating demonstrates excellent attachment to the hull and successful resistance to extremely icy conditions. The coating has proven an ability to withstand the harshest winter conditions on numerous occasions, as BAS has experienced firsthand.

Ecospeed has received the Lloyd's Register certificate that recognizes the coating as an abrasion resistant ice coating. This allows owners of vessels intending to navigate in ice conditions to reduce the scantlings of the ice belt, the area on the bow just above the waterline that is most prone to mechanical damage from sailing through ice, if this area is coated with Ecospeed.

Researching the Antarctic continent

RRS *James Clark Ross* has some of



The entire underwater hull of RRS James Clark Ross is now protected with Ecospeed.

Britain's most advanced facilities for oceanographic research on board and is the platform for most of the marine science undertaken. Each year she leaves the UK for the Antarctic laden with supplies for

British Antarctic and sub-Antarctic bases. She stays in the southern ocean for the austral summer carrying out oceanographic and biological survey work in between supplying and re-supplying the bases and

moving personnel around. Before the start of the Antarctic winter, she heads back to the UK again returning equipment, garbage to be disposed of and returning Antarctic base members. They have been away from the UK for periods ranging from just a few months to nearly two and a half years.

One-time application, lasting solution

Due to its unique composition, Ecospeed is not only the best protection available for underwater hulls of icebreakers and ice-going vessels, the coating also provides excellent hull performance and is the easiest ice-going paint to apply and maintain. The coating is the perfect way to offer a ship like the RRS *James Clark Ross* a lasting and full protection against the icy conditions it is faced with. ■



RRS James Clark Ross during expedition to Antarctica.