

# Editorial: Repairs have no impact on the longevity and smoothness of our coatings

**E**cospeed is a very unusual ship hull coating: in addition to its proven durability and toughness, any mechanical damage can be repaired without any consequences to the integrity, durability, longevity or smoothness of the coating. Other hull coatings in general use, such as antifouling and foul release coatings, cannot be successfully repaired when damaged. Attempts to repair them leave a rougher hull with a resulting increased fuel penalty.

Why would you need to repair Ecospeed? Not because the coating is degrading: it does not degrade over time. There are two main circumstances where repair might be needed.

Firstly, if hot work is carried out on the ship. This will destroy the coating in the area of the welding. But when the surface is prepared and the coating reapplied, perfect adhesion to the existing coating is achieved. This is for instance the case at new-



build. Often the ship is painted at the block state before being assembled in drydock. The erection joints are then coated and the new layers blend in perfectly with the existing ones.

Secondly, coatings are weaker than the underlying substrate, so you are going to have damage on the coating from time to time, caused by impact.

These damages can be repaired without reducing the longevity of the first application, or the smoothness of the hull. And the repair is as tough and long-lasting as the original.

A key reason for Ecospeed's reparability is that it consists of a single, homogeneous coating of vinyl ester



*It is impossible to repair an antifouling coating that has degraded over time and restore the hull to a smooth finish.*



*Hull of a ship where the antifouling coating has been "repaired" in drydock. This ship is about to undock.*



*Ecospeed coated hull where hot work inside the ship has damaged the coating.*



*The damaged Ecospeed coated hull repaired, leaving the hull as smooth as when first painted.*

and glass, applied directly to the steel or other substrate without primer, mid-coats, tie-coats, top-coats or anything else. Most other coating schemes consist of a series of different coatings made up of several layers of non-homogeneous substances such as zinc-rich epoxy primer, epoxy mid-coats, tie-coats and finally topcoats of antifouling or foul-release paint. Trying to repair such a coating scheme and leave it as good as the original is impossible. (This subject is covered in depth in a

White Paper we published: Hull Coating Degradation – the Hidden Cost. You can contact me to receive a copy of this White Paper.)

Another major reason is that the Ecospeed family of coatings has a 3-hour minimum overcoat time *but no maximum*. This means the second and, if required, third coat can be applied after three hours, three days or three weeks or more and will bond perfectly to the previous coat. This is not the case with most other

coatings. Epoxy coatings, for example, have a very finite time for overcoating and one layer must still be “tacky” when the next layer is applied. That is a problem. So many conditions occur during coating application. Is it exactly 24 hours? 26? 22? How can you be sure? It is always a more or less situation. Getting the “tackiness” factor right determines whether the coating is applied correctly or not. It’s a fine point requiring judgement and there is a very short window for application. It also means that when applying new paint over old, it will not adhere properly.

The reparability of Ecospeed is a key factor in the longevity that the coating can achieve. Ecospeed correctly applied can survive 30, 40, 50 years, and the repairs can survive just as long. The reparability of the coating is an important factor which enables us to offer a warranty of 10, 20 and even 35 years for our coatings.

When designing or maintaining ships and looking at their sustainability, the ease of maintenance and the effect of repairs on the durability and smoothness are very important. This is the only way to be able to coat a ship for 50 years without repainting and without the coating becoming very rough over time.

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