

Cruise ship hull coating

- ✓ High fuel costs eating into profits?
- ✓ Hull coating damage/fouling slowing your ship down?
- ✓ Underwater hull cleaning problems?
- ✓ Environmental problems with current coating or cleaning?



Cruise vessel's toxic SPC coating showing paint degradation.



Ecospeed hull coating for cruise vessels

It has recently come to our attention that not all is well with regard to cruise ship hull coatings. In particular, superintendents and others we have spoken to who have to deal with the subject have complained of a number of issues with both biocidal antifouling coatings and foul-release coatings.

The issues come down to:

1. Toxic hulls – not environmentally sustainable, subject to criticism from ports and clients
2. Considerable marine fouling which increases fuel consumption but also makes the ship look unattractive
3. Coatings damaged and rapidly degrading, becoming rougher, increasing fuel consumption and needing much repair or replacement in dry-dock
4. Extended time needed in dry-dock to repair or replace paint, hence loss of income
5. In-water cleaning needed but becoming increasingly difficult to carry out, fewer ports permitting it due to the toxic nature of the coatings and to the threat of spreading invasive species.
6. Corrosion of hulls and underwater gear on what are really very expensive ships (\$500 million or more).

These factors all add up to a decrease in profits, an increase in maintenance, and an unwelcome impact on the environment and the cruise line's PR. And many of these issues are actually getting worse, not better.



This cruise ship came out of the water just like this. The Ecospeed coating is 5 ½ years old. It has had absolutely minimal touch-ups, no repair, no replacement. It has undergone routine in-water cleaning. The ship gained two knots over trial speeds when the coating was changed to Ecospeed. The fuel savings are enormous.



When we learned of these problems we compared them to what our cruise line customers who have switched to Ecospeed are experiencing, and noted that they actually have none of these problems.

Ecospeed is non-toxic. It is applied once and can be cleaned as often as needed without restrictions and without damage to the coating. In fact it becomes smoother with cleaning. One major cruise line has been quoted as saying that they are saving 10% on fuel costs with Ecospeed compared to the earlier TBT coating which they replaced. Another cruise ship found that they gained 1.5 knots over sea trials speed when they replaced their hull coating with Ecospeed. Dry-dock time is significantly reduced rather than increased. In fact one Ecospeed customer recently specifically noted that he was able to get his ships out of dry-dock several days sooner than usual due to the Ecospeed coating. The coating at most requires minor touch-ups during routine dry-docking and this can be accomplished very rapidly. Any repairs blend in perfectly and do not make the hull rough. The coating is very strong and resilient



Routine in-water cleaning keeps this cruise ship's Ecospeed coated hull clean. In fact Ecospeed gets a little smoother with each cleaning. And the cruise line is saving at least 10% on fuel costs (compared to when it was using TBT).



and is probably the best possible protection against corrosion available today. Applied to rudders and underwater gear, Ecospeed and its tougher sidekick Ecoshield even puts an end to rudder cavitation damage.

If you are experiencing similar problems with your cruise ships' hull coatings, please let us know by contacting one of our offices. We can arrange a time to talk or meet to give you more information on Ecospeed and how it will put an end to these problems.



*Because Ecospeed is so easy to clean, the waterline of your cruise vessels will always look pristine to your passengers.
We produce the best looking waterlines.*

Why Ecospeed®?

What is Ecospeed? Ecospeed is an underwater ship hull protection and fouling control system. It consists of a tough, long-lasting, glassflake reinforced coating combined with routine in-water cleaning/conditioning. One application lasts the life of the hull. It does not degrade but becomes smoother over time with regular in-water cleaning. It can be used on any ship or submerged structure, steel, aluminum or GRP. It has the potential of great financial savings. It is designed with environmental protection in mind and is entirely environmentally safe.

Ultimate hull protection

Complete corrosion protection

- Hard, tough, glassflake-based
- Flexible, very strong adhesion, thick coating
- Impermeable and impenetrable

Long-lasting – one application lasts the life of the ship.

No reapplication needed, only minor touch-ups in drydock.

- 10-year extendable warranty

Cleanable in the water

Gets smoother with underwater hull cleaning

Ultimate protection for rudders and underwater gear

- Ecoshield – a very strong version of Ecospeed designed for rudders, bulbous bows and underwater gear, prevents cavitation and corrosion damage
- Protects rudders, stabilizer fins, bulbous bow (ice), thruster tunnels, nozzles and other underwater gear

Ice class coating (certified)

- Abrasion resistant
- Low friction
- Stays on when other coatings are removed by the ice

Protection for offshore, stationary vessels

Economical benefits

Enormous fuel savings (10 - 25% compared to conventional AF and FR coating systems)

- A smooth hull
- No long term paint degradation
- Becomes hydrodynamically smoother over time with routine cleaning
- AF and FR coatings typically degrade over time, with 20 - 45% fuel penalty after 10 - 15 years
- Easy to keep clean of fouling (can be kept to a light slime at most)

Reapplication costs saved (no reapplication needed)

Drydock savings (fewer and shorter drydockings since no need to repaint)

Ease of application

- Two homogeneous coats, 500µm each, no primer, midcoat, tie coat or any other coat)
- 3 hour minimum overcoat time, no maximum
- No special environmental requirements
- No special equipment needed

Easy and quick to repair in drydock

Does not interfere with other work in drydock

Greatly reduced total ownership cost

Better appearance of the hull

Better environmental reputation

Environmental benefits

Reduced GHG

- Smoother hull = lower fuel consumption = reduced emissions

No toxic emissions to environment

- No heavy metals such as copper, zinc, tin
- No co-biocides such as Irgarol, Diuron and others

No contamination of water column or sediment

No harmful effects on non-target marine life

Prevents hull-borne invasive aquatic species spread

- Ships sail with clean hull, potential invasive species removed

Very low VOCs

Can be cleaned in the water safely

- No damage to coating
- No harm to environment

No repeat application, no cumulative environmental impact from preparation and application

ECOSPEED®
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Traditional SPC coating.



Ecospeed hull as it came into dry-dock after 5 ½ years. No cleaning required.

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