



Propeller Coatings



What is it?

A Low Surface Energy material coating for propeller blades that reduces roughness and bio-fouling of ships' propeller surfaces to maximize propeller efficiency, reduce fuel consumption and minimize propeller wear.

How Does it Work?

The unique surface properties of the coatings make it difficult for biofouling to adhere too tightly. The coating is designed so that while ships are at sea the biofouling 'sloughs off' under hydro-dynamic flow. This ensures a clean and smooth propeller during ship operations.

What Will it Accomplish?

Propellers are not traditionally coated and the bare metal surfaces require frequent cleaning. This coating material saves maintenance costs by reducing or eliminating the need to perform propeller cleanings. This coating material also improves fuel efficiency between cleanings when the ship would normally be operating with an inefficient, biofouled propeller.

Applications

Propeller Coating Testing has occurred on the USS GUNSTON HALL (LSD 44), and seven propeller cleanings have been avoided since January 2009. This technology could be expanded to all surface ships.

Metrics

Fuel savings have been estimated at 0.5%, or 266 bbl/ship/year.



For More Information

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