



M/V ESL DANA container vessel hits its IMO EEXI and CII targets with Hempel's hull solutions

Around the globe, most shipping companies are looking to reduce emissions from their fleet by increasing energy efficiency. This was brought into even sharper focus in January 2023, when the IMO's EEXI and CII* measures came into effect, which require shipping companies to significantly increase the fuel efficiency of their vessels.

Applying a high-performance hull coating is one of the simplest and fastest ways to maintain a good CII rating and increase a vessel's reference speed for EEXI. Leading shipping company Peter Döhle Schiffahrts-KG decided to take this one step further by combining our Hempaguard MaX hull coating system with a propeller upgrade and our new SeamFlow solution.

Emirates Shipping Line together with Peter Döhle applied the solution to its M/V ESL DANA container vessel in April 2022. This puts the M/V ESL DANA well on the way to meeting its EEXI and CII targets.

"Hempel is a trusted partner for innovative hull performance solutions. We look forward to what they will bring us next."

Christoph Wehrenberg, Head of fleet performance

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* CII and EEXI: the Carbon Intensity Indicator and the Energy Efficiency Existing Ship Index.

Container vessel reduces fuel and emissions by 20 per cent with SeamFlow and Hempaguard

German-based Peter Döhle Schiffahrts-KG is a leading shipping company and maritime service provider with over 60 years of experience and a commercially managed fleet of more than 450 vessels. As part of the company's sustainability ambitions, it is working to reduce CO₂ emissions from its vessels in a number of ways, including the use of advanced hull coatings. These coatings minimise drag in the water so less fuel is required to move the ship, which lowers both fuel costs and associated emissions.

As a long-time Hempel customer, Peter Döhle asked us to recommend the most effective solution for its managed M/V ESL DANA container vessel. To maximise energy efficiency, we suggested a combination of our advanced Hempaguard MaX hull coating system and our unique SeamFlow solution.

- **Hempaguard Max is an industry leading hull coating system that delivers 8 per cent lower Fuel Oil Consumption (FOC) and emissions than market average antifouling coatings**
- **Our unique SeamFlow solution reduces fuel use and emissions by up to 2.5 per cent by smoothening protruding weld seams**

The solution was applied to the M/V ESL DANA during a scheduled dry docking in April 2022, which included a propeller upgrade. To accurately assess results, the team at Hempel SHAPE tracked the ship's fuel efficiency performance before and after it left the dock. The results were clear: The combination of Hempaguard MaX, SeamFlow and the propeller upgrade resulted in an immediate and significant energy efficiency increase right after its returning to operation. The following service period confirms a fuel consumption and therefore CO₂ emission reduction of above 20 per cent.

As fuel remains the number one operating expense for a large container vessel, this translates into significant savings for the owner. More importantly, it also contributes to better environmental performance – and puts the M/V ESL DANA well on the way to meeting its IMO EEXI and CII targets.

Having seen the improvements to fuel efficiency on the M/V ESL DANA, Peter Döhle has decided to apply Hempaguard MaX hull coatings on more vessels in the near future.



At a glance

Customer:	Peter Döhle Schiffahrts-KG, a leading seaborne shipping company and maritime service provider headquartered in Hamburg, Germany
Hempel system:	<ul style="list-style-type: none"> • Hempaguard MaX hull coating system • SeamFlow weld seam smoothening solution
Application:	<ul style="list-style-type: none"> • Hempaguard MaX: Air spray gun • SeamFlow: Hempel weld smoothening tool

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