

PPG SIGMAGLIDE® 1290

Ferry operator reports improved speed and power performance

Case study



The Customer

Scandlines, Copenhagen, Denmark

Vessel type

RoPax ferry

The Challenge

To increase the vessel's energy efficiency by reducing power consumption and support the customer's environmental objectives with significant carbon emissions reduction and the use of a biocide-free coating.

The Solution

PPG SIGMAGLIDE® 1290 fouling release hull coating

The Benefits

PPG SIGMAGLIDE 1290 helps to improve a vessel's power performance through reduced power demand up to 20% and minimal speed loss of 1.0-1.5% which contribute to reduced carbon emissions of up to 35%. It also supports compliance with the Energy Efficiency Existing Ship Index (EEXI) and the Carbon Intensity indicator (CII), and achieves the efficiency requirements along with 60 days' static protection.

The Result

Scandlines' M/V Deutschland has been operating with PPG SIGMAGLIDE 1290 on its dedicated route and achieved excellent speed and power performance while the hull remained completely clean. Thanks to this excellent performance, Scandlines decided to convert more of its vessels to the premium 100% silicone fouling release PPG SIGMAGLIDE 1290.

The Customer

Ferry operator Scandlines is based on a strong German-Danish collaboration during more than a hundred years. The company pursues an energetic green agenda and has converted the four ferries on the Rødby-Puttgarden route to hybrid diesel-electric propulsion in a project co-financed by the European Union, resulting in ferries that are more eco-friendly than conventional vessels operating solely on diesel.

Converting the conventional ferries to hybrid propulsion enables Scandlines to reduce CO₂ emissions by up to approximately 15,000 tons per year; the same amount as produced by 340 average households in Germany per annum.

The Challenge

Scandlines decided to upgrade the hull coating on the 142-meter RoPax M/V Deutschland to the 100% pure silicone fouling release coating PPG SIGMAGLIDE 1290. The customer needs included a biocide-free coating to support the company's environmental objectives and to increase the vessel's energy efficiency by reducing power.



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The Solution

The PPG SIGMAGLIDE 1290 premium fouling release hull coating was selected as the right solution to meet the needs of Scandlines for the M/V Deutschland, which serves the Rødby-Puttgarden route.

The vessel was dry docked at the Remontova shipyard, Poland in March 2020 for blasting and repainting. The hull was coated with PPG SIGMAPRIME® 700 universal epoxy anticorrosive primer and then with PPG SIGMAGLIDE 1290 coating.



The Benefits

The latest generation 100% silicone PPG SIGMAGLIDE 1290 fouling release coating achieves far greater carbon emissions reduction throughout a vessel's service life when compared to other fouling control products. The coating has been tested and proven to provide up to 20% power reduction with minimal speed loss of 1.0-1.5%.

The 100% pure silicone, biocide-free system ensures instant low friction that is smooth from the start of the vessel's operation which, therefore, delivers immediate energy savings and reduced costs. The coating contributes to up to 35% CO₂ savings and static protection for up to 60 days.

PPG SIGMAGLIDE 1290 Key Features and Benefits

- 100% pure silicone technology
- Biocide-free fouling release coating
- Eliminates slime problems and increases fuel savings
- Improves vessel performance through reduced power demand up to 20%
- Minimal speed loss 1.0-1.5%
- Up to 35% CO₂ savings
- 60 days' static protection
- Long-lasting coating with excellent adhesion
- Instant low friction – smooth operation from the start
- Regenerates the surface – long-lasting properties
- Excellent fouling resistance and release performance
- Low slime pick-up and easy slime release
- High-volume solids
- Silicone chemistry provides performance up to 90+ months
- Contributes to minimizing the environmental footprint
- Carbon emissions reduction supports EEDI, EEXI and CII requirements
- For use at new-building, refurbishment and maintenance

The Result

Since delivery, the first ship has been operating on its dedicated route with excellent speed and power performance and a completely clean hull, according to diver checks. Further to these positive results, Scandlines has decided to convert the hull coatings of more of its ferries to the pure 100% silicone fouling release PPG SIGMAGLIDE 1290 product, selecting PPG as the exclusive coatings provider for maintenance and repair.



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