

PPG SIGMAGLIDE® 1290

Overcoating competitor
fouling release coatings

Case study



The Customer

GASLOG LNG Services Ltd.

The Location

Piraeus, Greece

The Challenge

To overcoat an existing competitor fouling release fluoropolymer system

The Solution

The PPG SIGMAGLIDE 1290 system has an established, successful track record that also comprises overcoating of an previously applied competitor fouling release systems, including fluoropolymers

The Benefits

The PPG SIGMAGLIDE 1290 system is based on a 100% pure silicon binder that utilizes a dynamic regenerating surface, which releases slime and increases fuel savings

The Result

A successful overcoating procedure with excellent adhesion of the system. In addition, PPG SIGMAGLIDE 1290 delivered a clean hull condition and smooth vessel operation of each vessel achieving lower VOC emissions

The Customer

GASLOG LNG Services Ltd is a growth-oriented international owner, operator and manager of liquefied natural gas (LNG) carriers, providing support to international energy companies as part of their LNG logistics chain. Gaslog's consolidated fleet consists of twenty-seven wholly-owned LNG carriers, including nineteen ships on the water and eight ships to be delivered. Eight ships on order are scheduled to be delivered on various dates from 2016 to 2019. Seventeen of the owned ships are, or when delivered, will be equipped with the Tri-Fuel Diesel Electric (TFDE) propulsion technology. The four most recently ordered ships will have two-stroke diesel engines with low-pressure gas injection ('LP-2S').

The Challenge

PPG was invited by GASLOG in September, 2014 to specify its best fouling release coating system for six LNG vessels previously coated with a competitor's fouling release coating.

Although very few paint makers have fouling release coatings in their product range, overcoating a competitor fouling release coating is always a challenge due to the different, related technologies.





PPG has proactively approached this issue since 2005 by analyzing and testing most competitors' systems and has finally validated and optimized the correct PPG SIGMAGLIDE system overcoating procedure to be used on top of different fouling release technologies.

The Solution

The PPG SIGMAGLIDE 1290 system is the latest-generation fouling release coating based on a 100% pure silicon binder system, which has also been already tested successfully on top of competitor fouling release products.

Moreover, the PPG SIGMAGLIDE 1290 system is a fuel saver coating in line with EEDI and SEEMP requirements for further reduction of NOx and COx emissions mandatory for all ships.

The Benefits

Through careful chemical engineering of the 100% pure silicon binder system at a molecular level, PPG's R&D team has designed the optimal configuration for the silicon-coating surface of the PPG SIGMAGLIDE 1290 system.

In addition, the coating's specific dynamic surface regeneration properties preserve its effectiveness over time. As a result, the customer will experience no loss in performance and stability of the product throughout its lifetime.

Key Benefits:

- Technology proven in practice – successful track record for over 25 years
- Excellent performance – resists and releases slime to boost fuel savings
- Environmentally friendly as it contains no biocides
- Long-lasting coating – reduced maintenance costs
- Easy application – simple, well-established working procedures
- Excellent adhesion on existing (competitor) fouling release systems – no switching costs

The Results

The four LNG sister vessels (79,000 DWT each) Methane Lydon Volney, Methane Shirley Elizabeth, Methane Alison Victoria and Methane Heather Sally have already been successfully overcoated with the PPG SIGMAGLIDE 1290 system in Sembawang S/Y, Singapore during 2015, with a further two vessels to follow in 2016.

The underwater area remains completely clean from fouling and slime, the monitored performance of the hull has been improved with respective reduction of VOC emissions.



Top: LNG 'Methane Lydon Volney' after application of PPG SIGMAGLIDE 1290

Middle: LNG 'Methane Alison Victoria' after application of PPG SIGMAGLIDE 1290

Bottom: LNG 'Methane Heather Sally' after application of PPG SIGMAGLIDE 1290

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