



Minerva LNG fleet goes with Globic 9500 for hull & energy efficiency

When Minerva decided to expand its 70-strong fleet of tanker and dry bulk ships in order to enter the Liquefied Natural Gas (LNG) sector for the first time, it had very specific requirements. Having established Minerva Gas Inc., a dedicated in-house ship management company for its Gas business, and having commissioned the construction of five state-of-the-art LNG carriers, the company wanted a top-tier antifouling hull coating that would reduce fuel consumption and support the company's initiative for GHG emissions reduction. As the LNGs have demanding trade routes, the selected coating system had to ensure excellent day to day performance for both laden and ballast voyages, taking into consideration the possibility for the vessels occasionally to have to steam slowly or experience long idle periods in fouling aggressive waters.

After assessing offers from a number of suppliers, Minerva Gas Inc. settled on a full coatings and services solution from Hempel. For the underwater hulls, we specified our Globic 9500, an advanced antifouling coating that utilises patented Nano Acrylate technology to improve hull efficiency, both in terms of fuel consumption and reduction in emissions. We have worked with Minerva since 1996. During this time, we have established a trusted collaboration and a number of Minerva vessels already use our antifouling hull coatings. Based on this experience, the Globic 9500 coating system will provide extremely high fuel and emissions savings for the company's new LNG vessels.

As part of our technical service package, we assigned a hand-picked team of Hempel coating advisors to oversee the project. Onsite throughout application, the advisors ensured that all coatings were applied according to specification, and that the application time, waste and costs were minimised.

Nikolaos Grivas, Technical Manager of Minerva Gas, stated that despite the challenges that arose due to the Covid-19 pandemic and as major Hempel's production facilities are based in China, the supply of materials to the various construction sites of Minerva Gas vessels within Korea and China was flawless. Moreover, the expertise and the customer approach mindset of Hempel technical advisors indicates attention to the detail and willingness to achieve the specified outcome.

Regarding the vessels that are already in service the first indications regarding the performance of the anti-fouling are quite good. The evaluation of the painting system is of course in progress and it is monitored by the Energy and Efficiency department of Minerva.

In a nutshell, the cooperation of the two companies can be characterized as excellent, based on sincere dialog and deep knowledge of the marine environment.

Minerva chooses full coatings and services solution for LNGs

The challenge

Minerva Gas Inc is the Gas ship management unit of the Minerva group of companies (Minerva Marine Inc., Minerva Dry Inc., Minerva Gas Inc., Athina Maritime Learning and Development Center) - with a combined fleet of over 70 vessels, Minerva offers extensive ship-management services to its principals and the wider maritime industry with an experience of more than twenty-five years. Minerva has established long standing business relationships with Oil Majors, Traders, Miners, Grain Houses and Major LNG Charterers, with a clear focus, and proven track record of providing safe, reliable and quality services.

In 2018, Minerva decided to enter the Liquefied Natural Gas (LNG) sector, and so commissioned five newbuild LNG carriers with delivery dates in 2021 and 2022. When it came to coating the vessels' underwater hulls, Minerva wanted a top-tier antifouling product capable of meeting the demanding trading schedule set by the company's Major LNG Charterers, whilst at the same time minimising any unscheduled maintenance requirements, whilst keeping as a priority performance efficiency, and optimization for each Vessel.

The solution

After closely examining the operational profile of the LNGs, our team created a full coatings and service package for the vessels. For the underwater hulls, we specified Globic 9500N, a premium antifouling coating that delivers high fuel and emissions savings in aggressive fouling conditions. Due to the vessels' long outfitting time, we also specified a layer of Globic 9500S, an antifouling coating specially designed to protect against fouling during long idle periods. For the ballast tanks and other steel areas, our package included coatings from our Hempadur Quattro range, advanced epoxy primers with excellent anti-corrosive properties.

As part of our full coatings and services solution, we provided Minerva with an experienced team of FROSIO/NACE-certified coating advisors. As well as working with the applicators to ensure the coatings were applied according to specification during construction, the advisors also worked with the project team to ensure maximum application efficiency – saving time and costs during application.



At a glance	
Company	Minerva Gas Inc.
Vessels	5 LNG vessels, each with a capacity of 174,000 m ³
Year of delivery	2021-2022
Location	Daewoo Shipbuilding & Marine Engineering Co., Ltd (DSME), Samsung Heavy Industries (SHI), South Korea
Coating (anti-corrosives)	Hempadur Quattro XO 17870 Hempadur Quattro 17634
Coating (antifouling)	Globic 9500N Globic 9500S

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