

PHENGUARD™

Maximum resistance to aggressive cargoes

Case study



The Customer

d'Amico Società di Navigazione SpA

The Location

Rome, Italy

The Challenge

To provide excellent resistance to the widest range of aggressive cargoes and maximize vessel productivity

The Solution

The PHENGUARD system

The Benefits

Maximum cargo flexibility helps maximize revenue-earning potential

The Result

After 12 years in service, carrying a wide range of aggressive cargoes, the PHENGUARD system was found to be in excellent condition

The Customer

The d'Amico Group was born, and still is, a family-owned business operating successfully in the shipping business for over 50 years. This international marine transportation group operates, through its fully owned subsidiary d'Amico Tankers Limited, a modern, versatile fleet of around forty product and chemical tankers.

All vessels are double-hulled and provide worldwide shipping services to major oil companies and trading houses, such as ExxonMobil, Total, Shell, Glencore and Vitol.

The Challenge

In order to meet the demands of a highly competitive market, d'Amico needed to make the correct choice of tank coating, as this plays a major role in deciding which cargoes can be carried by the vessel, as well as influencing operational matters such as turnaround time and ease of cleaning. Therefore, d'Amico decided to use the most widely proven coating system currently in service, the PHENGUARD system, for the M/T High Spirit's cargo tanks during its new-building (NB) stage in 1999.





Ship owners and shipyards worldwide have trusted the PHENGUARD system, the industry's leading product in chemical resistance for over 30 years, to deliver flexible solutions for chemical cargo transportation, maximize revenue-earning capacity, reduce turnaround time and make vessel operations more versatile.

The Solution

As the market leader in this technology, PPG has created the industry's most advanced and effective solution to increase chemical and product tanker profitability and productivity: the PHENGUARD system.

Over the past 30 years, the PHENGUARD system has consistently given ship owners the ability to carry an exceptionally wide range of cargoes, including highly aggressive loads such as methanol, EDC and fatty acids. It is also resistant to hot water as well as grey water and galley waste. The PHENGUARD three-coat system is easy to apply using standard shipyard practices, with a surface that remains smooth in service, enabling efficient cleaning.

Maximum resistance, durability and a consistent track record are the core qualities that have contributed to making the PHENGUARD system the most reliable choice for chemical carriers around the world.

The Benefits

The PHENGUARD phenolic epoxy tank coating system leads the way in providing maximum resistance and exceptional performance. Its unique, proven technology ensures the widest range of vessel cargo-carrying capability, thereby increasing chemical tanker flexibility. Crucially, this allows owners to take maximum advantage of opportunities within the marketplace, as the most versatile vessels will find employment more readily.

In today's fiercely competitive business environment, the PHENGUARD system delivers significant commercial benefits:

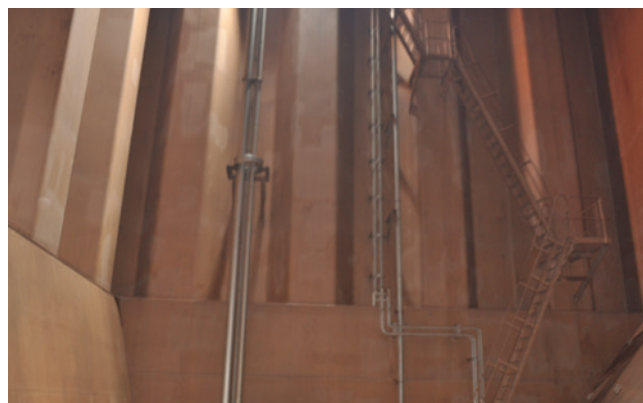
- Maximizes revenue-earning potential with the widest cargo loading flexibility
- Ensures more versatile vessel operations
- Increases vessel working life
- Reduces maintenance costs due to excellent performance

In addition, the PPG global network of technical support teams is available to support customers with tailor-made solutions for specific operational needs and cargo types.

Selecting the right tank coating can make a crucial difference to a ship's earning power. The PHENGUARD phenolic epoxy tank coating system is the market leader and the logical choice for chemical and product carriers – with over 25 million m² (269 million ft²) applied.

The Results

The PHENGUARD coating was first applied in 1999 and, following 12 years of superior performance, the owners expressed their full satisfaction with the system. Therefore, they decided to proceed with a full tank recoating in December 2011 for the M/T High Spirit and her two sister vessels: the M/T High Challenge and M/T High Wind. The recoating was carried out using the most advanced version of the PHENGUARD range: the PHENGUARD 965 coating. This coating provides quicker curing, thus reducing time to service and also has a glossy finish, which makes cleaning easier between cargoes. The three sister vessels will continue to take advantage of the PHENGUARD system's maximum resistance and resulting operational efficiency within the market.



Top image: PHENGUARD-coated tanks in excellent condition after 12 years in service
Bottom image: 12 years of maximum resistance in a chemical tanker

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