PPG NOVAGUARD™ 890LT

Easily applied, low-temperature cure tank lining system ideal for severe winter conditions

Case study

The Customer

Oiltanking Stolthaven Antwerp NV

The Location

Antwerp, Belgium

The Challenge

To provide a high-quality lining system in challenging temperature conditions during winter

The Solution

The PPG NOVAGUARD[™] 890LT single-feed, chemical- and abrasion-resistant tank lining cures at temperatures down to -10°C

The Benefits

As the PPG NOVAGUARD 890LT system can handle very low curing temperatures, it eliminated the risk of improper curing, which ensured the highest quality in challenging conditions

The Result

Our fully cured, high-quality system was applied efficiently in severe winter temperatures and will provide long-lasting corrosion protection

The Customer

Oiltanking Stolthaven Antwerp NV offers the logistic support needed to capture fast-moving opportunities for companies that are importing, exporting, distributing or holding products for a favorable market. The terminal is located among one of the world's most extensive refining and petrochemical complexes, which provides excellent access to national- and international markets by wateror land transport.

The company offers sophisticated storage- and handling infrastructure for oil products, chemicals and gases as well as 30 years of experience in handling chemicals. Customers are assured of the integrity of their products through dedicated storage systems and highly skilled personnel.

Oiltanking Stolthaven Antwerp is a 50/50 joint venture company between Oiltanking GmbH and Stolthaven Terminals BV, a subsidiary of Stolt-Nielsen Limited. The joint venture was formed in 2006 but remained an independent terminal that follows a 'first come, first served' policy. Both Oiltanking and Stolt-Nielsen are committed to further expand and develop the terminal into the 'specialty chemical hub' in the ARA region.



The Challenge

The 24.500 m³ tank is a 34-meter diameter tank that needed to be lined with a high-quality lining system in challenging temperature conditions.

The owner also wanted to reduce any curing risk should the internal heating installation fail. As with any other tank lining in cold conditions, this would result in an improper curing in the coating film, including the risk of having to reblast and reapply. By using our PPG NOVAGUARD 890LT system, this risk was reduced to an absolute minimum.

The Solution

To deliver the ideal solution for the customer, we proposed our newest coating development, the PPG NOVAGUARD 890LT system, which would be applied in two coats at 300 μ m DFT.

The fact that this system can be applied on a surface down to 0°C, combined with a minimum curing temperature of -10°C, provided a high degree of confidence for both the asset owner and the applicator in having a high-quality, low-risk tank lining for the tank bottom (including 1 meter of the shell).

The Benefits

The PPG NOVAGUARD 890LT coating is a solvent-free, low-temperature cure (fast return to service) Novolac phenolic tank lining system, which can be applied with a single-feed airless pump.

Key Benefits

- High chemical resistance
- Cures down to -10°C
- Can be applied on surfaces down to 0°C
- Fast return to service: inspection at 18 hrs. return to service 36 hrs. (20°C)
- Single-feed application
- Novolac epoxy technology for broad chemical resistance – similar to PPG NOVAGUARD 890
- Low-film thickness required 300 $\mu m/12$ mils
- High-film thickness capability 1,100 µm/45 mils with no sagging

The Result

The conditions were extremely difficult on this project, as the PPG NOVAGUARD 890LT tank lining had to be applied in two coats at 300 µm during winter. Throughout the application, the applicator also had to deal with several power- and heating interruptions due to heavy storm. A great benefit for the applicator, particularly in these arduous conditions, was that the coating was very easy to apply by single-feed airless pump.

Despite all these demanding operational circumstances, the inspection was conducted by a third-party inspector and the PPG Field Technical Services team, which found that the lining system was in perfect condition to begin service. Accordingly, a 10-year third-party insurance guarantee was issued.

The Technical Engineer of Oiltanking Stolthaven commented, "Despite the difficult winter conditions and power issues encountered, we were satisfied with the application of the PPG NOVAGUARD 890LT tank lining and with the technical support provided by the PPG team."





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