

PPG SIGMADUR 550 and PPG SIGMASHIELD 880

PPG's robust coating system and cross-border capability deliver a durable solution for a major lock

Case study



The Customer

The Flemish-Dutch Scheldt Commission and the contractor company Sassevaart.

The Location

The new sealock (Nieuwe Sluis) Terneuzen in the Gent-Terneuzen channel between Belgium and the Netherlands.

The Challenge

To provide highly robust coating systems for several parts (lock gates and bridges) of a new lock project constructed in a Chinese yard and managed from the Benelux. The color requirements, particularly color stability, during the entire project were very demanding.

The Solution

PPG SIGMAZINC 109 HS; PPG SIGMACOVER 410; PPG SIGMADUR 550 on the bridges.
Two layers of PPG SIGMASHIELD 880 on the lock gates.
PPG SIGMADUR 550 on the atmospheric parts of the gates.

The Benefits

The durable PPG SIGMADUR 550 topcoat has excellent color- and gloss retention properties and is resistant to atmospheric exposure conditions. The PPG SIGMASHIELD 880 coating is specifically designed for offshore splash zones with superior resistance to abrasion, impact, corrosion and seawater.

The Result

The lock is now protected against the severe conditions in the Terneuzen lock complex. Our integrated, cross-border technical support with direct contacts in Benelux and China ensured that this complex project was realized smoothly.

The Customer

Owners: the customer for the construction of the new lock is the Flemish-Dutch Scheldt Commission. The Sassevaart contractor combination is building the new lock gate. In addition, various parties are involved in the construction of the gate, such as the manager of the roads, the lock complex and the ports.

Contractor: Aannemerscombinatie Sassevaart Joint venture between BAM Infra, Stadsbader Contractors, DEME and van Laere N.V.

The Challenge

We needed to provide highly durable coating systems to protect a new lock against the very demanding saltwater environment and, in addition, provide a long-lasting topcoat with excellent color- and gloss retention.

Parts of the lock were constructed in a Chinese yard and managed from the Benelux. The project faced several engineering, procedural and logistical challenges. Compliance with high EU paint standards was a crucial requirement. These all required effective coordination and communication to ensure the project's successful execution.





The Solution

On the bridges, we proposed a highly resilient system that comprised the PPG SIGMAZINC 109 HS system primer, PPG SIGMACOVER 410 general-purpose epoxy buildcoat, and as a top coat PPG SIGMADUR 550, a glossy, aliphatic acrylic polyurethane finish. We applied two layers of PPG SIGMASHIELD 880 multipurpose, surface-tolerant epoxy on the lock gates plus the PPG SIGMADUR 550 finish on the splash zone and atmospheric parts of the gates.

Thanks to our experience gained on the lock gate OpenIJ project in IJmuiden, we provided Sassevaart with the support and expertise to overcome any challenges faced during the New Lock Terneuzen project. The customer also benefited from our expertise in corrosion protection in China, Belgium and the Netherlands.

The Benefits

The durable PPG SIGMADUR 550 high-gloss topcoat has excellent color- and gloss retention properties and is resistant to atmospheric exposure conditions. It is ideally suited to harsh environments where aesthetic appearance is also important.

The PPG SIGMASHIELD 880 robust fast-drying system's superior resistance to abrasion, impact, corrosion and seawater prolongs service life and protects assets in some of the world's most severe environments.

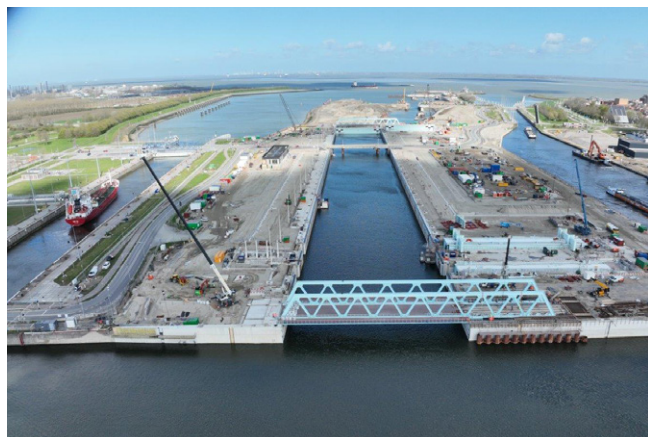
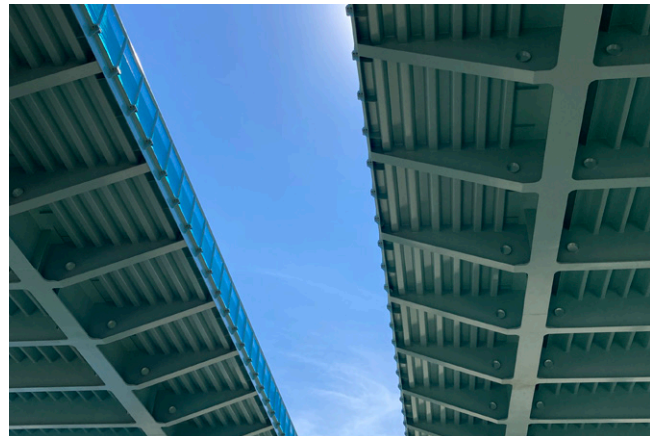
The PPG Field Technical Service team's global expertise proved to be beneficial to project. Through close collaboration with the subcontractor, we achieved quality assurance and monitored the application process of the products. This comprehensive support ensured that the coatings were applied correctly and in accordance with the specified requirements.

The Result

Our cross-border capability and expertise proved to be especially advantageous and enabled this important project to be completed successfully.

In addition to the aesthetic appearance of the new lock, the bridges and lock gates will be protected against the harsh climatic conditions in Terneuzen for an extended period. Fully confident in the system's performance, PPG provides a coating quality guarantee of up to 7 years after the project's completion by the Chinese subcontractor. As evidence of the system's durability, the subcontractor has demonstrated the performance of the PPG SIGMADUR 550 coating through exhaustive testing.

Accordingly, we take immense pride in our involvement in the completion of another significant lock complex.



Top: On the bridges PPG SIGMAZINC 109 primer, PPG SIGMACOVER 410 buildcoat and PPG SIGMADUR 550 topcoat.

Bottom: The New Lock Terneuzen gets installed.

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