

ADVANCED POLYMER COATINGS

case study

OneGuard™ Helps Cut Cargo Tank Coating Time by More Than 50%

A chemical tanker recoating project required a coating solution that could support demanding cargo tank service while helping reduce application time, project complexity, and return-to-service delays.

The project involved the protective coating of more than 3,000 square meters across two cargo tanks at a shipyard in Shenzhen, China. Using airless spray application, the project team completed the work in under four days, helping the vessel return to service faster with a smooth, high-gloss finish.

Instead of relying on a traditional multi-coat system, the team used OneGuard™, APC's single-coat marine cargo tank coating system, to streamline the process and reduce the number of application steps required inside the cargo tanks.

Traditional cargo tank coating systems often require multiple coats, extended dry times, and additional application steps. In a shipyard environment, each added step can create schedule pressure, increase labor requirements, and extend the time a vessel remains out of service.

On this project, OneGuard™ helped simplify the recoating process by reducing the application to one coating step. The result was a faster, more efficient workflow that reduced coating service time by more than 50% compared to incumbent multi-coat systems.

Customer Benefit

+ reduced application time
+ reduced labor
+ DTM technology
+ lowered VOC's
+ higher revenue potential

OneGuard™

*OneGuard™ streamlines coating application from 3+ steps to **just 1.***

*For this project, OneGuard™ produced **>50% reduction in coating application time.***



Designed for Shipyard Efficiency

Cargo tank recoating is often measured not only by coating performance, but by how efficiently the work can be completed during a scheduled shipyard window. This project demonstrated how OneGuard™ can help reduce operational complexity for shipyards, applicators, and vessel operators. With viscosity and pot life suitable for conventional airless spray equipment, the system supported practical application while helping improve project speed and consistency.

The coating was applied at a film thickness of 400 to 500 microns in one step, compared with standard systems that may require multiple coats at approximately 150 microns per coat.

For vessel operators, faster cargo tank recoating can mean less time out of service and a quicker return to revenue-generating operations. In marine environments, even small reductions in downtime can carry significant value.

For shipyards and applicators, a single-coat system can help reduce complexity, improve project execution, and increase the ability to complete more work within existing capacity.

By replacing a multi-step coating process with a simplified single-coat approach, OneGuard™ helps support faster project completion while delivering the protection required for demanding cargo tank service.

Project Outcomes

- **Project completed in under four days**
- **Greater than 50% reduction in coating application time**
- **Single-coat application**
- **2-hour dry time compared with 12-hour dry time for incumbent systems**
- **Smooth, high-gloss cargo tank finish**
- **75% lower VOC emissions compared with traditional epoxy-based coatings**
- **Compatible with conventional airless spray equipment**
- **Reduced operational steps and application complexity**