PPG NOVAGUARD® 810 ER

NAVSEA Approved Tank Coatings Technology for Commercial Workboat Applications

When it comes to protecting metals from corrosion and decay, marine applications are some of the toughest challenges for high performance coatings technology. Perpetual exposure to water and damp air wreaks havoc for boat owners, builders, and shipyards. And within the marine market, the vessel bilges and fuel and ballast tanks cause some of the biggest headaches for upkeep and maintenance, as the interior structural components are difficult to get to, with countless weld edges and nooks and crannies. It's the perfect storm of a coatings challenge.

Old technology

Tank maintenance and upkeep has always been a slow, multi-stage and labor-intensive process. Shipyards and boat owners recognize the inherent issues and challenges associated with tank work. The time and labor costs required to get it right, while the vessel sits idle, make it an expensive proposition.

For years, shipyards and applicators have had to deal with coatings solutions that got the job done but had numerous shortcomings that made the tank work that much more of a challenge. "One-coat" solutions that actually took at least two coats and often times three (to get the thickness right); brush coats that had a 15-minute pot life and didn't match colors, the former making it difficult to handle in such a tight window and resulting in product waste and the latter highlighting holidays, which made the inspection and approval process problematic; poor edge retention, with runs, drips, and sags if the coating was too thick; and 120°F (48°C)+ application temperatures that made it tough on equipment and tough on application workers. The long list of issues with old coatings technology made for longer project time and higher labor costs for maintenance and upkeep, putting much pressure on shipyards and boat owners alike.

There had to be a better way

When PPG developed PPG NOVAGUARD 810 ER high-performance epoxy coatings solution, the intent was to address the shortcomings of the existing coatings products on the market.

PPG NOVAGUARD 810 ER was designed to protect fuel tanks, ballast tanks and the internal and external superstructures of sea-faring vessels, with direct-to-metal application. With over 85% edge retention, PPG NOVAGUARD 810 ER minimizes the amount of touch-up, which also minimizes application time and labor costs.

Whatever touch-ups are necessary, they can be done using PPG AMERCOAT® 240 Brush Coat, a high-solids, edge-retentive epoxy with color matching and a 1 ½ hour pot life. The color matching decreases the visibility of holidays, which in turn increases the speed and likelihood of inspections and approvals. The longer pot life reduces product waste, but also makes the brush coat process much quicker and the product easier to handle for applicators.

PPG submitted PPG NOVAGUARD 810 ER to the U.S. Navy for lab and field testing, to see if it met the requirements of military specs. With a field trial as part of the qualification process, PPG NOVAGUARD 810 ER did hang over 20 mils in one coat and it was faster to apply. There was also noticeably less wear and tear on the spray equipment used for application.

With the improvements seen during the field trial, and PPG NOVAGUARD 810 ER meeting the requirements of the military specifications, NAVSEA approval was obtained, being assigned MIL SPEC MIL-PRF-23236 for ballast tanks, fuel tanks, well decks, well deck overheads, and bilges.

For the Navy and beyond

Commercial vessels, barges and tugs withstand the same brutal environmental conditions as any naval fleet, so requirements to address corrosion and the need for vessel upkeep and maintenance are essentially the same. Over the years, shipyards, boat owners and builders have had to deal with the shortcomings of existing coatings solutions. PPG NOVAGUARD 810 ER was developed to tackle the numerous issues of the older technology and was approved by the U.S. Navy to be used for vessel preservation projects.

> "Given the rigorous testing needed for a product to gain military approval, those in the industry are typically quick to adopt that product."

Such is the sentiment of shipyard and commercial vessel owners/builders, when they see that a product is on the Navy's QPL (Qualified Products List). When a product is NAVSEA approved and also solves a number of problems for applicators and can save a vessel owner time and money, then it provides a true high-tech coatings solution. PPG NOVAGUARD 810 ER is a high-performance product with one-coat, direct-to-metal formulation, and it delivers very fast application times and faster return-to-service after coating, with touch-ups possible with PPG AMERCOAT epoxy. PPG NOVAGUARD 810 ER has an efficient formulation that ultimately can save on labor time, decrease loss of income while the vessel is out of the water, and increase vessel productivity. PPG NOVAGUARD 810 ER enables owners to work their assets hard, while maintaining an extended service life.

PPG We protect and beautify the world™

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