

PENNSYLVANIA STATE POLICE ACADEMY WATER TANK

After investigating various coating systems for renovating the potable water tank at Pennsylvania's State Police Academy, project engineers chose Tnemec's fluorourethane exterior finish, which is specially formulated to "lock in" high gloss and color. "It takes a lot of work and is expensive to have a tank recoated, so the engineers wanted an extremely long-lasting coating system that would retain its color and gloss," according to Tnemec coating consultant Lee Zeigler.

The interior of the 1 million gallon steel tank was prepared in accordance with SSPC-SP10/NACE No. 2 Near-White Blast, followed by a spray-applied prime coat of Series 91-H₂O Hydro-Zinc, a two-component, moisture-cured, zinc-rich urethane. "Hydro-Zinc was the first organic zinc-rich primer to be ANSI/NSF Standard 61 certified for potable water tanks," explained Tnemec coating consultant Ed Enoch. "Coating systems with Hydro-Zinc can be expected to last 40-50 percent longer than conventional interior two-component epoxy systems for extended protection."

Two coats of N140 Pota-Pox Plus, a polyamidoamine epoxy, were spray-applied to complete the interior. "The first coat of Pota-Pox Plus was beige in color, followed by the finish coat in white, which is a pretty standard specification," Zeigler noted.

The tank's exterior was abrasive-blast cleaned in accordance with SSPC-SP6/NACE 3 and primed with Series 90-97 Tneme-Zinc, a zinc-rich urethane. Next, an intermediate coat of Series 73 Endura-Shield, an aliphatic acrylic polyurethane, was brush- and roller-applied. Endura-Shield is highly resistant to abrasion and exterior weathering.

A solid-blue topcoat of Series 701 HydroFlon, a semi-gloss fluorourethane exterior finish specially designed for tanks and other exposed steel substrates, was brush- and roller-applied to complete the water tank's exterior. HydroFlon provides outstanding resistance to ultra-violet light degradation and unprecedented long-term gloss and color retention with excellent resistance to abrasion and chalking. It is aesthetically pleasing and recommended for structures where long-term maintenance cycles are desired.

"There are many water tanks around the Philadelphia area that are using this system," Enoch added. "The longevity and color preservation provided by this coating system accounts for its growing popularity."

FEATURED PRODUCTS

Series 73 Endura-Shield
Series 90-97 Tneme-Zinc
Series 91-H₂O Hydro-Zinc
Series N140 Pota-Pox Plus

Series 701 HydroFlon



PROJECT INFORMATION

Project Location

Hershey, Pennsylvania

Project Completion Date

June 2006

Owner

Pennsylvania American Water - Hershey, Pennsylvania

Field Applicator

Worldwide Industries Inc. - Butler, Pennsylvania

Series 701 HydroFlon provides excellent color & gloss retention as well as outstanding resistance to UV light degradation for the exterior of the Pennsylvania State Police Academy Water Tank in Hershey, Penn.

