



PROJECT PROFILE

Featured Products

Series FC20 Pota-Pox
Series 73 Endura-Shield

Series 91-H₂O Hydro-Zinc
Series V700 HydroFlon



Tnemec's HydroFlon was chosen to protect the exterior of the Warrenville, IL waterspheroid because it offers superior long-term color and gloss retention.

500,000 Gallon Waterspheroid

For more than 30 years, the distinctive logo for Warrenville, Illinois, has been displayed proudly on city letterhead, police cars, welcome signs, public works uniforms and water tanks including a 500,000-gallon waterspheroid tank recoated in 2008 with a fluoropolymer finish from Tnemec. "The client clearly wanted a product that was going to last 20 years," according to Kevin Bomstad, senior project manager with Engineering Enterprises. "HydroFlon was chosen once the client understood the long-term benefits of the product."

Prior to the introduction of HydroFlon, Bomstad often specified a four-coat system for water tanks consisting of a zinc-rich urethane primer, an epoxy tie coat, a urethane topcoat and a clear urethane finish coat for added protection against ultraviolet (UV) light. "We did several projects in the early 2000s that required a full clear coat," Bomstad noted. "When Tnemec introduced HydroFlon, you no longer needed the additional clear coat because the fluoropolymer technology provides excellent long-term color and gloss retention."

The exterior of the steel water tank was prepared in accordance with SSPC-SP6/NACE No. 3 Commercial Blast Cleaning and primed with Series 91-H₂O Hydro-Zinc, a moisture-cured, zinc-rich urethane primer. Next, an intermediate coat of Series 73 Endura-Shield, an aliphatic acrylic polyurethane, was roller-applied, followed by a topcoat of HydroFlon. "A containment system was required to collect the spent abrasive being used to blast clean the old paint off the tank," recalled Tnemec coating consultant Erik Otten. "The proximity of the pump station and building used to house antennas directly beneath the tank made the containment more difficult than most water tank repainting projects."

Both Bomstad and Otten cited the labor savings that a three-coat exterior system offers versus one that requires an extra clear coat. "The bottom line is you're probably cutting a week's worth of work off a recoating project by using HydroFlon," Bomstad acknowledged. "Even though HydroFlon is more expensive per gallon than standard urethanes, the labor savings offset the material cost significantly. And it's superior in terms of its color and gloss retention."

In addition, the tank's interior steel received a spray-applied prime coat of Hydro-Zinc following surface preparation in accordance with SSPC-SP10/NACE No. 2 Near-White Metal Blast Cleaning. Two coats of Series FC20 Pota-Pox, a fast-curing polyamide epoxy, were spray-applied to complete the interior coating system.

Project Name
500,000 Gallon
Waterspheroid

Project Completion Date
August 2008

Engineer
Engineering Enterprises,
Sugar Grove, IL

Project Location
Warrenville, IL

Owner
City of Warrenville

Field Applicator
Jetco, Ltd.,
Prospect Heights, IL