

## MEADOWDALE DAYTON WATER TANK

The biplane in the logo for Montgomery County, Ohio, represents the county's connection to the Wright Brothers and Wright-Patterson Air Force Base, known as the "birthplace, home and future of aerospace." When county engineers decided to repaint a million-gallon water tank in the Meadowdale section of Dayton with the logo design, the last thing they wanted was a protective coating backed by "a wing and a prayer." Recalled Tnemec coating consultant Dan Haines, "They were looking for long life expectancy from a company with credibility."

The engineers chose Series 700 HydroFlon, a fluorourethane known for its durability, color options, gloss retention and ease of application, according to Haines. The life expectancy of HydroFlon surpasses traditional urethane topcoats and is an excellent alternative to four-coat systems since it eliminates the need for a clearcoat. The technology features high solids, low volatile organic compounds (VOCs) and superior UV protection.

American Suncraft Construction, the painting contractor, began work on the tank in the fall of 2004, starting with abrasive blast cleaning in accordance with SSPC-SP10/NACE 2. A containment system was used throughout the preparation and application work, which was monitored from start to finish by World International Testing. Once the interior was blast-cleaned, a stripe coat of Series 20 Pota-Pox, a polyamide epoxy, was applied on the weld seams with a roller, followed by a prime coat of Series 20 spray-applied at 3.0 to 5.0 mils dry film thickness and two additional spray-applied coats at 4.0 to 6.0 mils dry film thickness each.

Series 90-97 Tneme-Zinc, a two-component, moisture cure, zinc-rich aromatic urethane primer, was applied to the tank's exterior at 2.5 to 3.5 mils dry film thickness. Next came an intermediate coat of Series 73 Endura-Shield, an aliphatic acrylic polyurethane, at 2.0 to 4.0 mils dry film thickness. Included in the Endura-Shield was a special additive, Series 44-710 Urethane Accelerator, which allowed the coating to be applied in cooler temperatures. "They delayed applying the Series 700 finish coat until spring of 2005 due to concerns about weather conditions," Haines noted. "They came back in the spring of 2005, power-washed the tank, put on another coat of Endura-Shield and roller-applied the HydroFlon at 2.0 to 3.0 mils dry film thickness."

"Everyone involved with the project was happy and for future tanks they'll definitely consider this type of system," Haines added. "It turned out to be a beautiful job with great graphics."

### FEATURED PRODUCTS

Series 20 Pota-Pox  
Series 44-710 Urethane Accelerator  
Series 73 Endura-Shield

Series 90-97 Tneme-Zinc  
Series 700 HydroFlon



### PROJECT INFORMATION



**Project Location**  
Dayton, Ohio

**Project Completion Date**  
Spring 2005

**Owner**  
Montgomery County Sanitary Engineering

**Engineer**  
Dixon Engineering, Inc.

**Fabricator / Applicator**  
American Suncraft Construction - Fairborn, Ohio

Series 700 HydroFlon was selected to coat the exterior of the Meadowdale Water Tank in Dayton, OH.

