# PROJECT PROFILE

## Featured Products

Series 20 Pota-Pox
Series 66 Hi-Build Epoxoline
Series 73 Endura-Shield
Series 181 W.B. Tneme-Crete
Series 54-660 Masonry Filler
Series 1074 Endura-Shield II
Series 151 Elasto-Grip FC
Series 113 H.B. Tneme-Tufcoat
Series 15 Uni-Bond
Series 36-603 Undercoater
Series N69 Hi-Build Epoxoline II

A variety of high-performance Tnemec coatings were used to protect the Arrowhead Tank & Pump Station in Kansas City, MO.

## Arrowhead Tank & Pump Station

Although high profile projects like the six-million gallon Arrowhead standpipe and pump station in Kansas City, Missouri, occupy considerable space, they leave no room for error when it comes to selecting the right interior and exterior coating systems. "A project this size requires a wide selection of specialty coatings," according to Tnemec coating consultant Scott Keilbey. "It involves a very large water tank which is attached to a significant sized pump station where you have interior and exterior concrete construction, an overhead deck, pumps, pipes, valves and mechanical devices that all have different coating requirements."

The interior and exterior were shop coated with Series 20 Pota-Pox, a polyamide epoxy. After the tank was erected on site, the weld seams were prepared in accordance with SSPC-SP10/NACE 2 on the interior and SSPC-SP6/NACE 3 on the exterior and re-primed with Pota-Pox both inside and out. The interior received two additional coats of Series 20. A second coat of a polyamide epoxy, Series 66 Hi-Build Epoxoline, was applied by roller to the exterior, followed by a finish coat of Series 73 Endura-Shield, an aliphatic acrylic polyurethane, which is highly resistant to the extreme weather conditions the exterior of water tanks are subjected to in the Midwest. "Several thousand gallons of coatings were used on the tank alone," Keilbey recalled. "The City of Kansas City had used these coatings on previous tank projects, so they had a level of confidence with using them for the Arrowhead standpipe."

Series 113 H.B. Tneme-Tufcoat, an acrylic epoxy, was used on interior concrete walls. Exterior masonry was coated with a high-build acrylic emulsion, Series 181 W.B. Tneme-Crete, to protect against driving rain and freeze-thaw conditions. Among the various coatings applied to interior valves, pipes and steel structures were Series 66, Series N69 Hi-Build Epoxoline II - a polyamidoamine epoxy - and an aliphatic acrylic polyurethane, Series 1074 Endura-Shield II.

A recent study found Kansas City to have the cleanest tap water of the 50 largest cities in the U.S, which is a source of pride for the city's Water Services Department and its director Frank Pogge. "This was the first new tank that the city of Kansas City had built in several years and it was a significant tank because it addressed the water needs in the city's ever-expanding northern section," Keilbey added. "And you can see the tank from just about anywhere in the Northland section of the city, so it's understandable that they wanted everything to be done right."

**Project Name**
Arrowhead Tank & Pump Station

**Project Location**
Kansas City, MO

**Project Completion Date**
October 1999

**Owner**
Kansas City Water Service

**Engineer**
Bucker Willis Ratliff, Kansas City, MO

**Tank Fabricator**
CBI Water, Plainfield, IL

**Field Applicator**
CBI Services, Kansas City, MO