

# COOLING TOWER SULFURIC ACID TANK

When an energy company near Little Rock, Arkansas, was having trouble keeping their sulfuric acid tank at a stable temperature, they searched for the most viable way to guard the tank's contents from the harsh exterior conditions. Rather than building a cover or installing costly traditional insulation, the owner chose to apply Tnemec's innovative Aerolon coatings system to the tank's exterior.

"The owner was unable to keep the sulfuric acid in the tank stable due to the increased steel temperatures caused by the direct sun exposure," recalled Tnemec coating consultant, Myron McWherter. "The corrosion on the tank was accelerated under these conditions so much that the steel was severely pitted and needed to be repaired."

The steel tank was repaired and the interior was relined. The exterior steel was prepared in accordance to SSPC-SP 6/NACE No. 3 Commercial Blast Cleaning before receiving a prime coat of Series 1224 Epoxoline WB, a water-based epoxy specially formulated to provide a corrosion resistant barrier under thermal insulating coatings.

Following the prime coat, applicators spray-applied two coats of Series 971 Aerolon Acrylic at 30-40 mils dry film thickness (DFT) per coat. When applied to processing tanks or pipes, Aerolon Acrylic – a coating highly filled with aerogel for exceptional insulating performance – has a thermal conductivity of 35 mW/mK, making it twice as efficient as other thermal coatings and comparable to most other forms of insulation.

The tank received a topcoat of Series 1028T Enduratone in 02SF Safety Yellow. Series 1028T is an innovative acrylic polymer that provides excellent long term protection in exterior exposures.

"The Aerolon coatings system applied to this tank will help keep the liquid inside at a stable temperature, even during the hottest months of the year," stated McWherter. "The tank looks like new and, because the plant didn't have to install a new tank or build a cover, this solution was more cost-effective."

Tnemec coatings have been applied in harsh industrial environments for decades with unprecedented long-lasting performance. From zinc-rich primers to insulating coatings, Tnemec products offer advanced corrosion protection for tanks, piping, and other infrastructure in need of industrial-strength protection.

## FEATURED PRODUCTS

Series 1224 Epoxoline WB  
Series 971 Aerolon Acrylic  
Series 1028T Enduratone



## PROJECT INFORMATION

### Project Location

Greater Little Rock, Arkansas

### Project Completion Date

July 2014

### Contractor/Applicator

McCormick Painting Company  
Little Rock, Arkansas

The location and elevated temperature of this sulfuric acid tank caused accelerated corrosion on the steel before being repaired and recoated using Tnemec's innovative thermal insulating coating system, Aerolon.

