



EPOXYTEC™

Mitigating Groundwater Intrusion at Chilton Reservoir

The City of Chilton faced a persistent challenge with Reservoir No. 8, a concrete structure positioned partially above and below ground. The tank had clear signs of distress — blisters throughout the below-grade sections, each filled with water, indicating groundwater pushing its way into the structure. When the engineer began searching for a solution that could manage this infiltration and still comply with NSF 61 requirements, Epoxytec Series 457 (CPP Sprayliner 61) became the clear answer.

Before work could begin, the applicator had to remove the existing coating, which proved extremely rubbery and difficult to blast off. A combination of pressure washing, grinding, abrasive blasting, and SSPC-SP13 / ICRI-CSP5 surface preparation methods were required. The concrete itself was old, with many high and low spots, and there was concern that continued blasting could damage it further. Some low-lying areas still held remnants of the original coating, eventually leading the contractor to complete test patches using Tnemec Series N140F to ensure the system could proceed without compromising the substrate.

Another challenge came from the Wisconsin DNR. The project was originally specified with Tnemec Series N218 and Epoxytec Series 457, but because N218 is not “NSF certified,” the DNR would not approve its use, despite it being intended over a cementitious substrate. The project then pivoted to Tnemec Series N140F at 2-4 mils as the primer to prevent outgassing, followed by two coats of Epoxytec Series 457 sprayed at 250 mils total. The first coat was sprayed and back-troweled to improve the finish. In total, the project used approximately 30 gallons of N140F, 850 gallons of Series 457, and 6 gallons of Epoxytec CPP Trowel-Liner for holiday patching.

Throughout the process, the focus remained on finding a system capable of withstanding the water pressure infiltrating the tank. Alternatives such as Tnemec Elasto-Shield and Tnemec Series 406 were considered, but there were concerns that either option would blister — similar to the existing coating — leading the team to move forward with the structural epoxy. In the end, Epoxytec Series 457 provided the solution the owner needed.

Featured Products

**Epoxytec CPP Sprayliner 61
(Series 457)**

**Epoxytec CPP Trowel-Liner
Tnemec Series N140F – Primer**



Project Information

Location

Chilton, Wisconsin

Completion Date

September 19, 2025

Structure

Concrete potable water reservoir
(Partially buried)

Owner

City of Chilton

Engineer

McMahon, Neenah, Wisconsin

Applicator

BACR – Chicago, Illinois

Above: Exterior side view of Reservoir No. 8, providing scale and orientation of the structure.

Below: Freshly applied Epoxytec Series 457 (CPP Sprayliner 61) curing on the interior reservoir walls, following spray-and-back-trowel application to achieve a uniform finish throughout the structure.



PART OF THE TNEMEC FAMILY OF COATINGS

123 West 23rd Avenue, North Kansas City, Missouri 64116 USA +1 816-483-3400 epoxytec.com