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Attention: New Product Editor

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PRODUCT NEWS RELEASE

Concrete Repair For Wastewater Storage Tanks Built In 1939

Concrete wastewater tanks originally constructed in 1939 had not received any repair for almost 20 years. Located outdoors, wastewater solution, weather and corrosion were taking their toll on the tanks. It was time to repair corroding and spalled areas as well as exposed rebar. Controlling corrosive attack to extend the service life of older concrete structures 10 to 15 years is now a viable option with the Cortec® MCI® (Migrating Corrosion Inhibitor) Repair System.



The concrete wastewater tanks were first sandblasted and then pressure washed to remove all loose material. Exposed rebar was coated with patent pending MCI® 2023. This passivating repair grout gives extra corrosion protection to reinforcing steel for long term resistance. Spalled areas were repaired with MCI® 2038, a two component, fiber-reinforced finish repair mortar. The entire surface of the tanks were treated with MCI® 2020, NSF Standard 61 approved for potable water applications.



A one-coat surface treatment, MCI® 2020 is easily sprayed, brushed or rolled on. The MCI® migrates through dense concrete structures which is demonstrated with SEM (scanning electron microscopy) and XPS (X-ray Photoelectron Spectroscopy). For field testing, the migratory depth of the MCI® is measured with a low cost, QAC test kit. It shows that the MCI® migrates up to 4 inches in 28 days. The MCI® Repair System protects both anodic and cathodic areas to reduce corrosion of steel reinforcing bars, wire, and mesh independent of chloride concentration levels. Both cracked beam and ASTM G109 testing show that MCI 2020 surface treatment can reduce corrosion rates as much as 80%. As a final step, the tanks received two coats of epoxy. Cortec® MCI® Repair System can add 10 to 15 years of service to older, existing concrete structures. The system can be used for bridges, highways, parking decks, marine piers, pillars, offshore platforms, and concrete foundations.

Photo: High-resolution photos of Cortec® MCI® Repair System of wastewater tanks available for download at: <http://www.blueleopard.net/cortecdownload/MCIsystem>

Company Description: Cortec® Corporation, a pioneer in environmentally friendly packaging, metalworking, cleaning, water treatment and metal protection technologies, is located in White Bear Lake, Minnesota. ISO 9001 and 14001 Certified, they manufacture over 300 products in five plants located in Minnesota and Wisconsin. Cortec is a global supplier of innovative and environmentally friendly specialty chemicals, plastics and coated papers.

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