

Case Study: Unique Application of Madewell Products on Aeration Tank Floors



Contractor: Intech Coating Consultants

Location: Atlanta, GA

Structures: Two 40' diameter stainless steel aeration tanks

Year: 2016



Intech Coating Consultants performed an application of Madewell products on the floors of two steel aeration tanks containing wastewater in a beverage bottling facility. There were a couple challenges to overcome while performing the work. One area of concern was the void space underneath the tanks that would allow the floors to flex when the tanks were full and compromise the integrity of the newly installed laminate system. To address this issue, the void spaces were filled with Mainstay ML-72P Polymer Modified Microsilica Restoration Mortar prior to installing the system.

After filling the void spaces, Intech performed surface preparation by sandblasting to the desired NACE/SSPC Metal Blast Cleaning Standard. The tank floors were coated with 10 mils of Mainstay DS-5 100% Solids Epoxy Coating followed by an application Mainstay ML-72F Microsilica Restoration Mortar. Problems associated with drainage were

prevented by sloping the floors from from 8" on one end to 2" on the other. After mortar application, another 30 mils of Mainstay DS-5 Epoxy was applied. Woven roving was then laid into the wet Mainstay DS-5 Epoxy and saturated with Madewell 1312E Epoxy Saturant to reinforce the system. A final coat of 80 mils of Mainstay DS-5 Epoxy was then sprayed over the laminate to waterproof and protect the underlying system.

Since only the floors of the tanks required laminate reinforcement, there was a question of where to terminate the system on the walls of the tanks without increasing the risk of coating system failure. The system needed to be terminated in such a way that wastewater could not find its way into the various layers of the system. The terminations also needed to allow the walls to expand and contract somewhat when the tanks were filled and emptied. To solve this problem, Madewell 806 Trowelable Flexible Joint Sealant was applied 3" above and below the termination point of the system on the walls of the tank to accommodate this movement and seal the system.

