

Case Study: Installation of Madewell's Unreinforced Aquarium Lining System



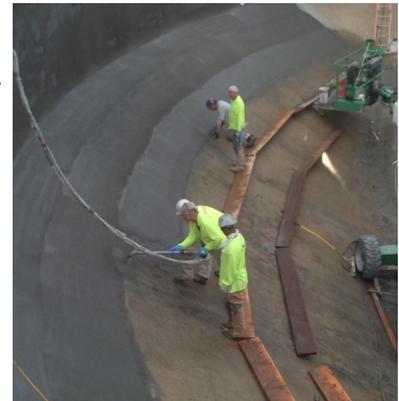
Contractor: Thomarios
Location: San Diego, California
Structure: Six dolphin pools at a marine wildlife facility
Year: 2016

Thomarios completed a project in California that involved the restoration of six dolphin pools at a local marine mammal facility. The previous coating had begun deteriorating badly on all the pools, which caused major concern from the standpoint of animal health and safety. To protect the overall well being of the dolphins, the owner decided to re-line the pools with Madewell's Unreinforced Aquarium Lining System. This system restores deteriorated pool surfaces and provides a smooth, impermeable, and easy to clean surface.



To begin, Thomarios performed high pressure water blasting at 40,000 psi. This surface preparation method was employed to completely remove the old coating and roughen up the underlying concrete to achieve a substrate suitable for mortar application.

After surface preparation, Mainstay ML-72P Polymer Modified Sprayable Microsilica Mortar was applied at 1/4" to fill bugholes and voids in the concrete. However,



one pool presented a unique problem. The walls sloped at a steep angle down to the floor and made accessing these areas very difficult. To solve this problem, Thomarios temporarily attached plywood boards to the walls to stand on while applying the mortar. The ML-72P Mortar was then smoothed and finished.

Next, Madewell 927 Penetrating Epoxy Primer was applied to the mortar to promote proper adhesion between the mortar and the base coat of epoxy material. Thomarios continued by applying "Safety Blue" Mainstay DS-5-S Medium Build Epoxy Coating at 50 mils. This coating builds film thickness and helps cover imperfections in the underlying mortar. A coat of "Safety Blue" Madewell 1550 Fluorinated Polyurethane followed by a clear coat of Madewell 1550 were applied to maintain color stability and resistance to UV light.

In addition to coating the pools, Thomarios provided slip resistance on horizontal surfaces by broadcasting H&C® Shark Grip™, sand, and flakes into uncured Mainstay DS-5-S and topcoating with either "Tan" Madewell 525 Polycarbamide Coating (on decks) or Madewell 1550 (ledges and other walkways). This project was completed in March of 2016.