

CASE STUDY ::> TARGET APPLICATION

Concrete Water Storage Tank



THE SITUATION

In order to provide an economical method of storing potable water and reducing evaporation losses, public water systems in Mexico are often constructed in sunken concrete tanks which are covered with a concrete roof. The roof is supported by vertical concrete pillars which sit in the water. Over time the chlorine used to purify the water leaches into the vertical pillars, attacks the concrete and steel rebar, and ultimately causes them to structurally fail. Failure of the support pillars causes the roof to collapse.

The Mexican National Water Commission (Comision Nacional del Agua –CONAGUA), contacted the LINE-X distributor in Mexico looking for a solution.

THE SOLUTION

The local distributor proposed protecting the concrete support pillars from the chlorinated water using LINE-X XS-350 during new their construction. The engineering contractor for the project conducted his own laboratory testing of the XS-350 as well as other proposed polyurea coatings to determine the best material for his project. LINE-X won this head to head evaluation based both on material performance and cost.

THE RESULTS

CONAGUA and local construction team are very pleased with the results. The local LINE-X distributor solved a large problem with a superior product at an economical rate. By one estimate they saved more than 30% of the estimated costs.

Because of their performance on these first jobs, they are being invited to bid on future work as well.

THE PROCEDURE

In this project, an existing concrete tank was being refurbished. The construction company determined which concrete pillars and cross blocks would be replaced and coated with LINE-X. Coating any older pillars already contaminated with chlorides was considered a waste of material. Those pillars would be coated in the future when they required replacement.

The new concrete pillars were first cleaned with compressed air. They were then primed with 3-5 mils of LINE-X XS-515.

After the appropriate cure time, the pillars were coated with 80-100 mils of XS-350.

Before filling the tank with water a final inspection was conducted and any damage

This job has been conducted twice to date for a total of 170 pillars.

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