

ChemLine® Coating Protects Concrete and Secondary Containment Areas in Turkmenistan

ChemLINE®
CASE STUDY

ChemLine® is well-known for protecting chemical storage tanks, processing equipment, and transport tanks from corrosion. But ChemLine® is just as highly regarded for safeguarding areas in and around and underneath tanks, including concrete tank pads, flooring, secondary containment and waste water areas. These areas must be able to withstand spills and splashes, and tank leaks from aggressive chemical exposures such as strong acids, alkalis, gases, solvents and oxidizers, to prevent migration into the concrete surfaces.

Turkmenistan Thermal Power Producer Utilizes ChemLine®

One of the largest thermal power companies in Turkey was hired to deliver secondary concrete protection at three newly constructed power facilities in Turkmenistan, in the cities of Ahal, Lebap, and Mary. The company first tested concrete coupons coated with ChemLine® coating from Advanced Polymer Coatings against a range of chemicals. After approving these tests, the company specified ChemLine® coating, with the application and heat curing to be provided by APC's Turkish operation, MarineLine Turkiye.

Various chemicals are used at these facilities in chemical containment areas, neutralization pits, pit channels and other areas. The chemicals are safely contained with ChemLine®, including:

- 98% H₂SO₄ (Sulfuric Acid)
- 0-100% NaOH (Sodium Hydroxide)
- 0-19% NaOCl (Sodium Hypochlorite)
- 0-50% FeCl₃ (Ferric Chloride) at ambient temperature.

For these projects, Advanced Polymer Coatings first applied a ChemLine® Primer coat (blue color), with ChemLine® (red color) next as the base coat, finished with ChemLine® (grey color) as the top coat. Each coating was applied to approximately 200dft (microns), for a total of 600dft (microns). Following coating, the areas were tented and heat cured at 90°C for 8 hours.

ChemLine®'s unique, patented cross-linking polymer system creates a very dense, tightly knit chemical structure, with a virtually impenetrable barrier protection, which delivers the ideal solution for coating concrete areas against potential splashes, spills and leakage.



Secondary containment area lined with ChemLine® coating.

The projects were successfully carried out at all three facilities and have been in service now for more than one and half years. The company then retained MarineLine Turkiye to further apply ChemLine® for another secondary concrete containment project at Gardabani, Georgia under the same conditions.



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The concrete secondary containment surface is first cleaned and prepared for the coating application.



The primer coat of ChemLine® (blue color) is sprayed onto the concrete secondary containment pit.



The primer coat of ChemLine® (blue color) is also applied into pit channels (trenching).



After the primer coat of ChemLine® is checked, stripe coating of ChemLine® base coat (red color) is applied where needed.



The concrete secondary containment areas are then lined with a ChemLine® base coat (red color) and then followed with a ChemLine® top coat (grey color) to finish out the protective lining application.

