

# ChemLine® Anti-Corrosion Polymer Coating for Magpro in Israel

**ChemLINE®**  
CASE STUDY



*Concrete electrolysis tank support pillars are coated with ChemLine®.*

While several Israeli-based industries and concerns (i.e. petrochemical, chemical processing, food & beverage, dairies, power utilities, pharmaceutical, and secondary containment) are offering numerous opportunities for the use of ChemLine® high performance coatings, the largest and most notable is that of “Magpro.”

Magpro was established for the purpose of planning and advising a conglomerate of Israeli companies collectively called, “The Dead Sea Works” that mine and process minerals from, and beneath the Dead Sea. Magpro supervised the construction of a \$5 billion project – the world’s largest Magnesium manufacturing plant. The first stage has opened, with stages “B”, “C”, and “D” following that – as well as a phosphoric acid plant and a dedicated power facility.

## Magpro Tests ChemLine®

Magpro initially requested extensive technical data, test information, references and a specific coatings guarantee. Then Magpro ordered APC’s ChemLine® coating for investigative purposes only. During the application of the trial section, test samples were sent to the Israeli Institute for Standards. When all representative samples passed, Magpro formally approved the use of the ChemLine® coating system.



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*(Top) On-site at the Magpro facility with ChemLINE® coated areas shown. (Bottom right) Close-up of newly coated pillar.*

In total, when Stage “A” was done, Magpro applied ChemLINE® coating to over 107,000+ft<sup>2</sup> of (9,940m<sup>2</sup>) of surface area.

ChemLINE® was used to coat the concrete pillars that hold the electrolysis tanks, and also pipes and the roof. APC was also asked to coat 10,000ft<sup>2</sup> (929m<sup>2</sup>) of steel ductwork. In addition, because the original epoxy pillar grout failed and absorbed water, ChemLINE® was mixed with sand to form the pillar wells and then topcoated with ChemLINE®.

Furthermore, ChemLINE® was used to coat two salt water tanks measuring 31 ft. (9.4m) in diameter and a 33 ft. (10m) in height that were fabricated.

Magpro also considered coating the entire plant ceiling to resist the corrosive vapors that drift upward during processing.

## Why Use ChemLINE®?

The main benefits that Magpro regarded as being paramount in the decision to specify ChemLINE® instead of other coatings were:

- Dielectric strength and high electrical isolation
- Chemical resistance to the highly corrosive environment
- Absence of permeability
- Resistance to combustion
- User-friendly application
- Easily repairable

Perhaps the most appropriate summarizing statement concerning performance of ChemLINE® for the Dead Sea Works project was made by a senior member of the Magpro Engineering Department who stated: “This is the next generation in coatings!”

