

# Polymer Concrete Electrolysis Cells

DERAKANE Epoxy Vinyl Ester Resins – Case History



## Location / Year

The cells were fabricated in December 1987 at a Copper Refinery in Tocopilla, Chile.

## Fabricator

Dow Quimica, Chile, Santiago, Chile.  
Noncor Linings N.V.

## Technical Data

NONCOR<sup>®</sup> Polymer Concrete electrolytic cells for non-ferrous electrowinning / refinery plants. Each cell measures approximately 4.5 m long x 1.2 m wide x 1.2 m tall (15 x 4 x 4 ft) and weighs 4 tons (~ 8 820 lbs).

## Fabrication

The cells were fabricated from a polymer concrete based on **DERAKANE 411** epoxy vinyl ester resin.

## Service Conditions

These cells are used in the electrowinning of copper from electrolyte containing a 14% concentration of sulfuric acid and a 4% concentration of copper sulfate, at 65°C (149°F).

## Maintenance

The cells were reported to be in good condition in January 1994, after 7 years.

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