

STRONGWELL

APPLICATION PROFILE



LARGE COPPER PRODUCER TAKES ADVANTAGE OF EXTREN® AND DURADEK® FOR PLATFORMS AND WALKWAYS

Over 17,000 square feet of operating platforms and walkways were fabricated from fiberglass structural shapes and grating for Minera Escondida Limitada's new Ammonia Leach/Solvent Extraction/Electrowinning plant. This plant uses a patented, first of its kind Ammonia Leach process to recover 99.999 percent cathode copper from chalcocitic copper concentrate, (a higher purity than is possible by other SX-EW methods).

In this process an electrical current is passed through cells, causing the ultrapure copper to be plated onto stainless steel blanks. The electrolyte liquid used in the extraction process is highly corrosive to steel, thus offering a perfect application for composite materials such as fiberglass. FRP structurals are also used for their electrically insulative properties in this process.

The new Ammonia Leach SX-EW process results in a cleaner, more efficient plant. The copper can be leached from ore of relatively low copper content, enabling mines to process ore previously put aside.

EXTREN® fiberglass structural shapes and DURADEK® grating are used in the tankhouse around the cells and around the multitude of pumps, pipes and tanks throughout the plant. The connection details and design information available in the Strongwell *Design Manual*, as well as Strongwell's ability to meet tight schedules, were critical to Fluor Daniel, the contractor for the job.

TECHNICAL DATA

Product:	SX-EW Operating Platform
Process:	Pultrusion, Fiberglass Fabrication
Materials:	EXTREN® Series 625 fiberglass reinforced vinyl ester, fire retardant DURADEK® I-6000 1-1/2" fiberglass reinforced vinyl ester grating, fire retardant
Sizes:	Overall size — approx. 17,000 sq. ft. walkway area. EXTREN® structural shapes used: Wide flange beams: 3" x 1/4"; 6" x 1/4"; 6" x 3/8"; 8" x 1/2"; 8" x 3/8"; 10" x 3/8"; 10" x 1/2"; 12" x 1/2" I-Beams: 6" x 3" x 1/4"; 8" x 4" x 3/8"; 8" x 4" x 1/2"; 10" x 5" x 1/2"; 12" x 6" x 1/2" Channels: 6" x 1-5/8" x 1/4"; 8" x 2-3/16" x 1/4"; 8" x 2-3/16" x 3/8"; 10" x 2-3/4" x 1/2"
For:	Fluor Daniel
User:	Minera Escondida Limitada



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