

LIQUID RUBBER INDUSTRIES, INC.

Liquid Rubber

Innovators in environmentally safe protective coatings

Advancing the science of protective coatings

Many types of metal ore processing rely on a process called 'electrolytic refining' to purify the metal once extracted from the ore. This process is carried out in a series of 'cells' or tanks.



One such electrolytic copper refining mill in Mexico uses over 200 individual electrolytic cells. These cells were protected by *Engineered Maintenance Solutions* using Liquid Rubber Industries High Build and Spray Grade coatings.

In the electrolytic tank house, anodes are suspended in tanks containing electrolyte, which is a solution of sulphuric acid, copper sulphate and additional agents. Thin copper plates ("cathode starting sheets") are placed between the anodes and an electrical current is passed between them, dissolving copper from the anodes and depositing it evenly on the cathode starting sheets. During this process, impurities settle to the bottom of the tank to form anode slime, which is a raw material for the production of silver, gold and other precious metals.

Liquid Rubber Industries products were chosen to protect both the inside of the electrolytic cells and the concrete flooring below from the detrimental effects of the strong acid solutions.



Prior to spray coating all cracks and joints were sealed using a special High Build rubber modified sealant, then the Spray Grade, a specially formulated elastomer modified asphaltic coating, was applied using low pressure spray equipment, to form a seamless membrane that reached into even the most difficult to access areas giving a complete seal. The polymer-asphalt formulation has been tested to show excellent resistance to acids.

The research that went into these coatings resulted in a unique product with both high acid resistance and an excellent balance between hardness and elasticity making a durable long lasting protective coating.



MARITIME RUBBERIZED COATINGS
Environmentally Safe

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