

# ErgonArmor Delivers Reliable Acid Proofing to Lead Acid Battery Producer Across Three Continents

**LOCATION**

Celaya, Mexico

**COMPLETION**

February 2020

**OPERATION**Sulfuric Acid Storage &  
Battery Filling Facility  
Expansion**PRODUCTS**[PENNTROWEL™ Epoxy Primer](#)  
[TUFCEM™ II SL Membrane](#)  
[FURALAC™ Green Panel Mortar](#)  
Acid-resistant Brick

**Challenge:** Protect trenches and secondary containment areas against corrosive sulfuric acid using skilled contracting services in accordance with specifications

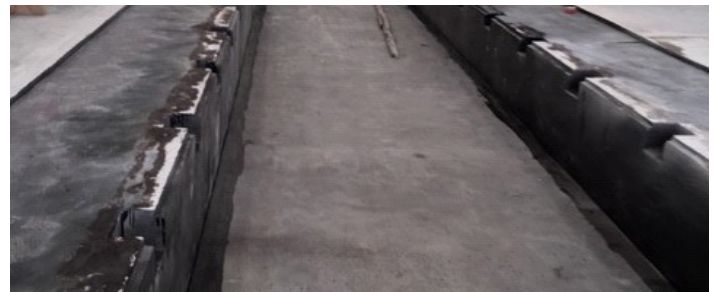
**Solution:** Acid-resistant brick lining set with FURALAC Green Panel Mortar jointing and bedding over TUFCEM II SL Membrane on PENNTROWEL Epoxy Primer coated concrete under the supervision of ErgonArmor trained contractors

Despite continued globalization, manufacturers often find it difficult to source proven technology and materials to meet corporate design standards as they expand across continents. With decades of favorable experience using ErgonArmor acid-resistant brick, mortar, and asphaltic membrane lining systems in its US facilities, one global lead-acid battery producer didn't want to reinvent the wheel as it expanded operations in China, Colombia, and Mexico. Through partnership with this trusted resource, it was able to protect its floors, trenches, and sulfuric acid storage secondary containment areas from corrosion with the same reliable acid-proofing, from the Americas to Asia.

For this lead-acid battery producer, successfully outfitting its facilities with dependable acid-proofing required timely delivery of proven ErgonArmor materials and installation in accordance with its corporate design standards and best practices. When it sought to line its battery filling area trenches and sulfuric acid storage secondary containment areas with acid-resistant brick linings at its Celaya, Mexico vehicle battery plant in 2020, drawing upon ErgonArmor's experience with its other international projects was an obvious choice.

To ensure the Mexico plant could expect the same reliability and longevity from its acid brick linings as facilities in the US, ErgonArmor brought several resources to bear: a Mexican distributor with experience importing US products to assure ready

materials availability, an ErgonArmor factory-trained Mexican masonry contractor to handle the installation, and a US supervisor familiar with the client's corporate standards and installation best



1. Main concrete battery filling area trench with PENNTROWEL Epoxy Primer exposed on the floor awaiting application of TUFCEM II SL Membrane, which is already applied to the side walls and top surface apron.



2. Finished battery filling area trench lined with acid-resistant brick, FURALAC Green Panel Mortar, and TUFCEM II SL Membrane.



3. Sulfuric acid storage tank farm secondary containment lining with TUFCEM II SL Membrane applied over PENNTROWEL Epoxy Primer, shown before membrane is covered with chemical resistant mortar and masonry.



4. Finished sulfuric acid storage tank farm secondary containment area protected against corrosion with acid-resistant brick, FURALAC Green Panel Mortar, and TUFCEM II SL Membrane.

practices. Together with ErgonArmor's technical expertise and product training capabilities, these resources delivered a quality installation.

Sometimes finding experienced installers is the biggest challenge in sourcing proven technology and materials outside a manufacturer's home country. For the Celaya project, ErgonArmor's sales team in Mexico was able to refer the battery producer to a local factory-trained installer. The installer received project-specific product orientation and installation training at ErgonArmor's global research, development, and technical training center just outside of Jackson, Mississippi, USA.



5. Contractor training at ErgonArmor's technical training center in Jackson, Mississippi USA.

After a safety orientation and technical presentation at the training event, the contractor's crew applied PENNTROWEL Epoxy Primer, TUFCEM II SL Membrane, and FURALAC Green Panel Mortar in a mock installation to get a feel for the products' handling. Once the project got underway, ErgonArmor dispatched experienced US supervision to the jobsite. With experience installing thousands of square meters of acid-resistant brick linings and flooring for US lead-acid battery producers, the supervisor helped the installer tackle the site-specific staging and construction details around floors and curbs, trenches and aprons, tank pads and equipment supports.



6. Group photo of contractor training at ErgonArmor's technical training center in Jackson, Mississippi USA.

With ErgonArmor's support, manufacturers and chemical processors that consume or produce acids—particularly aggressive strong acids like oleum, sulfuric acid, phosphoric acid, nitric acid, hydrochloric acid, and hydrofluoric acid—can confidently execute acid-proofing projects utilizing ErgonArmor corrosion protection linings and castables.

For questions about project support resources wherever your next project takes you, call ErgonArmor at **+1-601-933-3595** or send your inquiry to **ErgonArmorCustServ@ergon.com**.



7. ErgonArmor dispatches its mobile demonstration trailer and field technical service team to conduct product training at contractors' offices and clients' jobsites inside the US.

ErgonArmor, a Division of Ergon Asphalt & Emulsions, Inc.

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