

# Belzona Protects Sulfuric Acid Containment

ID: 9910

**Industry:** Chemical & Petrochemical  
**Application:** TCC-Tanks and Chemical Containment Areas  
**Substrate:** Concrete  
**Products:** Belzona 4124 (Bulkfill), Belzona 4311 (Magma CR1), Belzona 5811 (Immersion Grade)

**Customer Location:** Conroe, TX  
**Application Date:** October 2023

## Problem

Client has a concrete sulfuric acid containment near a cooling tower. The concrete has damage from spills / leaks of the 98% sulfuric acid into the non coated concrete and from always being wet in TX humidity & nearby cooling tower mist. The acid and moisture have caused cracks & spalling in the concrete over time. The customer wanted a long term solution to protect the concrete.



Acid containment with damage in concrete before application



Belzona 4311 applied into containment



Close up on coating with non skid aggregate



About 1.5 years after install we completed a visual inspection of the coating and it was still in good condition.

## Application Situation

The Belzona was applied to seal and protect the concrete containment from future spills. Not every spill is neutralized within 48 hours per best practice, so the ability handle 98% acid in immersion at ambient temps made 4311 a superior option to competitors. Belzona 4124 was used as a cost effective solution to rebuild damaged concrete. Also, Belzona 5811 coating was used to act as the primer/first coat, to create a cost effective solution for the customer.

## Application Method

1. A containment was built around the concrete containment.
2. The concrete was vapor blasted to roughen the concrete and create an optimal profile to bond to.
3. Belzona 4124 was used to rebuild lost concrete on the containment floor in the damaged areas.
4. First coat of Belzona 5811 was applied with nonskid to create a non-slip surface.

For more examples of Belzona Know - How In Action, please visit <https://khia.belzona.com>

ISO 9001:2015  
FS 695214  
ISO 14001:2015  
EMS 695213

Belzona products are manufactured under an ISO 9000 Registered Quality Management System.

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5.☑Belzona 4311 was applied as the top coat for long term protection against chemical attack.

6.☑Safety yellow paint was applied around perimeter on top of the dike wall

## Belzona Facts

At the 1.5 year follow up inspection the coating was in excellent condition. The area showed no spalling, cracking, or delamination of coating. The customer is happy. If a facility has a spill of acid into ground soil it can cause extreme fines and shutdown of the facility. This Belzona repair helps protect from that happening.

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