

Acid Containment Drain Coating with Belzona 4311

ID: 10035

Industry: Chemical & Petrochemical

Application: FPA-Floor Problem Areas

Substrate: Concrete

Products: Belzona 4311 (Magma CR1), Belzona 4911 (Magma TX Conditioner)

Customer Location: Greater Houston, TX

Application Date: October 2025

Problem

The customer recently repoured an area of concrete trench / drain that was previously eaten up from a sulfuric acid spill. The drain area has pipes in it that leaked onto the uncoated concrete and damaged it over time by chemical attack. After repouring the concrete drain area they wanted to line it to protect it from spills in the future.



Image of the relatively new poured concrete drain area, before the coating work began



Belzona 4911 conditioner applied



Belzona 4311 application complete



Belzona 4311 application complete

Application Situation

The Belzona solution should save the customer from any acid spill eating away their concrete drain if it happens in the future. If an acid spill were to get into the ground there would be numerous fines and safety concerns. It could also create downtime in their process, which creates unwanted financial loss. The 4311 system will provide a chemical resistant barrier from sulfuric acid attack.

Application Method

We performed a moisture test with a protimeter to confirm moisture level was below 6%, on this relatively new poured concrete. We used handheld grinders with a turbocup diamond grinder attachment to prep the concrete. The grinder we used had a dust collection extraction shroud attachment on it to help collect dust. We applied Belzona products using stiff bristled nylon brushes, with bristles cut in half.

Belzona Facts

The customer chose Belzona rather than leaving the area uncoated for a few reasons. Mainly, the cost to repour this concrete caused an acid tank downstream of it to be out of service. This downtime had to be scheduled in advance with operations during a turnaround, to help prevent downtime issues in the future. Belzona 4311 is chosen because of its excellent rating in immersion to 98% sulfuric acid.

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

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