Belzona provides chemical protection against sulphuric acid dosing skid

ID: 10405

Industry:	*Chemical & Petrochemical*	Customer Location:	*London*
Application:	*FPA-Floor Problem Areas*	Application Date:	*March 2026*
Substrate:	*Concrete*		
Products:	*Belzona 4181 (AHR Magma-Quartz),Belzona 4311 (Magma CR1)*		

Problem

A sulphuric acid dosing skid had experienced leakage over time, resulting in sulphuric acid coming into contact with an untreated concrete floor. This exposure caused significant acid attack, leading to concrete degradation and surface damage. If left untreated, continued chemical exposure could have compromised the structural integrity of the area, increased maintenance costs, and created ongoing health and safety concerns for site personnel. A long-term solution was required to repair the damaged substrate and provide effective protection against future acid spillages.



Historic leaks of sulphuric acid had caused deterioration on the concrete floor



Belzona 4181 screed was applied to rebuild the damaged concrete and fill the resulting voids



two coats of Belzona 4311 were applied across the repaired surface, creating a chemically resistant protective lining.



This application reduces future maintenance requirements and associated downtime, providing long-term protection.

Application Situation

The affected area was located beneath sulphuric acid dosing equipment where historical leaks had caused deterioration of the concrete floor. Following the installation of new dosing units, the asset owner wanted to restore the damaged concrete while implementing additional containment measures to prevent further deterioration from accidental drips or minor spillages. The repair solution needed to withstand aggressive chemical exposure, be durable in service, and provide a seamless protective barrier capable of extending the service life of the infrastructure.

Application Method

The damaged concrete was first assessed, with all weakened and contaminated material removed to ensure a sound substrate remained. The area was then thoroughly washed down and neutralised to eliminate any residual acid contamination. Once prepared, a Belzona 4181 screed was applied to rebuild the damaged concrete and fill the resulting voids. During the repair process, a mini bund was created around the perimeter of the area to provide secondary containment for any future leaks or drips.

ISO 9001:2015
FS 695214
ISO 14001:2015
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Following curing of the screed, two coats of Belzona 4311 were applied across the repaired surface, creating a chemically resistant protective lining designed to safeguard the concrete from further sulphuric acid attack.

Belzona Facts

Repaired and restored acid-damaged concrete without the need for extensive floor replacement, creating a seamless, chemical-resistant barrier to protect the substrate from future sulphuric acid exposure.

Incorporating a mini bund design to improve containment and minimise the risk of further damage from spillages and extends the service life of the concrete floor and surrounding infrastructure.

This application reduces future maintenance requirements and associated downtime, providing long-term protection.

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