

Mixed chemical sump leaking into water table - SAVED

ID: 9945

Industry: Chemical & Petrochemical

Customer Location: Derbyshire

Application: TCC-Tanks and Chemical Containment Areas

Application Date: July 2018

Substrate: Concrete

Products: Belzona 4181 (AHR Magma-Quartz), Belzona 4311 (Magma CR1), Belzona 4911 (Magma TX Conditioner)

Problem

A trough handling spillage from a line of 10 chemical tanks would empty into a sump, creating a cocktail of various harsh chemicals. The sump was found to be leaking and urgent action was needed to contain and properly manage the waste.



Showing damaged sump with little in the bottom, following further leakage



The trough completely lined and sealed



A steel plate was employed to seal over the damaged floor, this was grouted in with Belzona 4311 CR1 prior to encapsulating the whole sump



The sump with a new base plate, completely encapsulated

Application Situation

The experience offered by the applications team could not be matched with regard to the challenges of the works. The client had no confidence in other contractors at the side of the Belzona Team, which included confined space works, multi-mixed chemicals, time constraints and housekeeping during production

Application Method

Tank to be drained and initially cleaned by client.

Clean the surfaces of the tank with the combination of jet washing and steam cleaning.

Remove excess water and dry surface of tank as required.

Prepare internal substrates by means of grinding to achieve the correct profile and surface cleanliness.

Vacuum and sweep away any dust and debris from the application area prior to application of

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ISO 9001:2015

FS 695214

ISO 14001:2015

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Fit new base plate and launch in with Belzona 4311

Mix and apply Belzona 4911 (Magma TX) to the prepared area of the bund.

Mix and apply Belzona 4181 (AHR Magma Quartz) to the already conditioned areas at a minimum of 3mm.

Repeat until the required areas are coated.

Joint inspection of the works to be carried out.

Clear and leave site

Belzona Facts

The trough had to be temporarily sealed to ensure that no further chemicals entered the working area of the trough end and the sump. The client could only find Belzona to offer a coating that would perform with such a mixture and cocktail of chemicals, these being Caustic Soda(Sodium Hydroxide) @ 29%-51%

Phosphoric Acid @ 70% - 90%

Hydrochloric @ 28%

Nitric @ 60%

The sump has been visited on an annual basis and the Belzona application is always found to be performing completely as expected

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