

# Chemically damaged floor rebuilt and protected with Belzona

ID: 9339

Industry: Chemical & Petrochemical

Customer Location: Sarnia, Ontario

Application: FPA-Floor Problem Areas

Application Date: September 2019

Substrate: Concrete

Products: Belzona 4311 (Magma CR1), Belzona 9111 (Cleaner Degreaser)

## Problem

Manufacturing plant that processes Bio-based succinic acid was having issues with their floors. Dry process material of Bio-based succinic acid was being spill onto the concrete floor and during floor washing operations, water activated the acid and this one started to attack the concrete.



Floor damage caused by Succinic Acid



Applying second coat of Belzona 4311



Second coat of Belzona 4311 around floor step up's and piping equipment through floor.



Finished floor coating Belzona 4311

## Application Situation

The asset owner was planning on chipping all loose concrete from the floor before patching all damage to regain the proper elevation and finish. The previous coating did not provide any chemical protection and was not effective at preventing the acid from attacking the concrete. The floor needed to be re-coated with an acid proof coating that was also able to take walking traffic and the occasional abrasion from hand tools, scraper, brooms, etc. They wanted a floor coating able to last many years in this harsh environment.

## Application Method

The damaged concrete was washed and decontaminated. Missing concrete areas were refurbished and smooth out. 2coats of Belzona 4311 (Magma CR1) were applied to prevent future deterioration of the concrete via chemical attack.

## Belzona Facts

The customer had interest in performing further tests, so we provided small brick samples coated with Belzona 4311 (Magma CR1). The coated samples were immersed in Succinic acid for 1 month. The coating did not exhibit any sign of deterioration. the customer was pleased with the performance of the coating and decided to proceed. The coating was inspected in late 2023 (4 years later) and

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was still protecting the floor.

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