

ONTARIO
**KNOW-HOW
IN ACTION**

BELZONA[®]
GREAT LAKES

003/2021

**MANUFACTURING
FLOOR
CHEMICAL PROTECTION**



BELZONA[®]
Repair • Protect • Improve
AUTHORIZED DISTRIBUTOR

THE PROJECT

FLOOR REBUILD AND
PROTECTION
SEPTEMBER, 2019

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.

The damage to the floor was worse at areas where there were pockets or cavities or where the floor coating had been compromised. The concrete succumbed, leaving large holes in the floor that perpetuated more damage for each subsequent floor washing activity.

REBUILD & PROTECTION

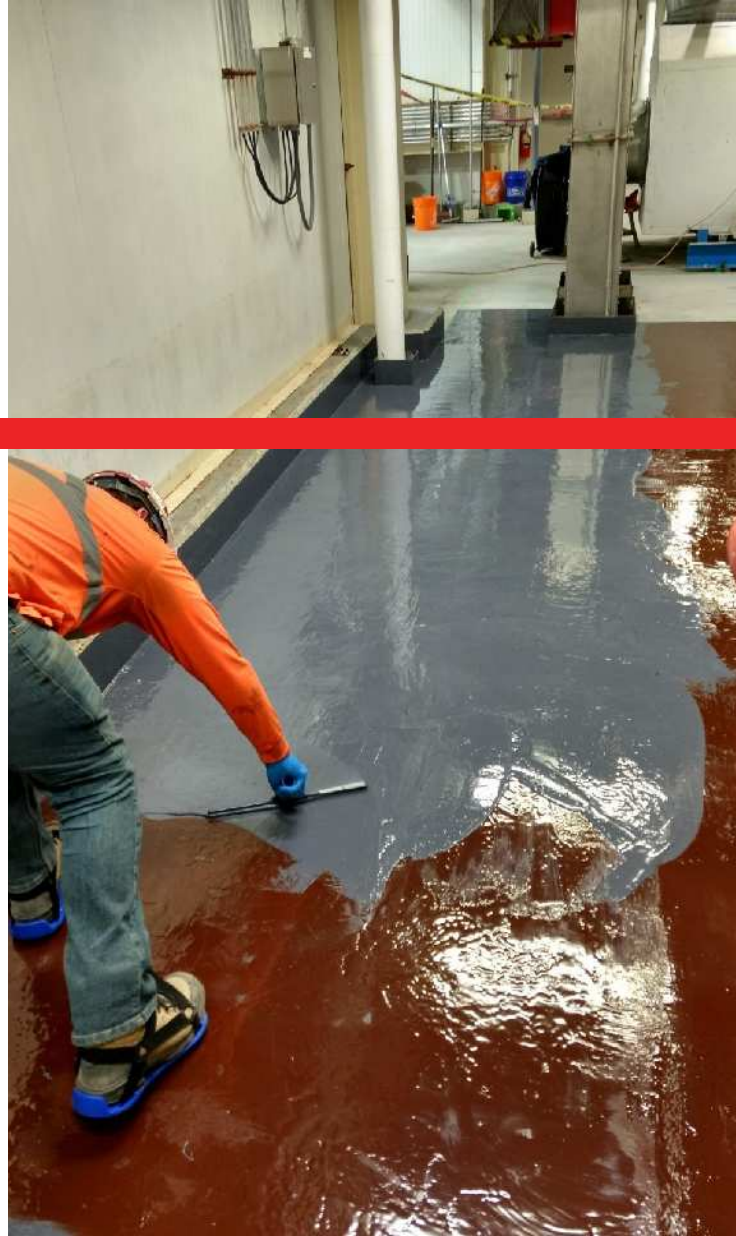
The asset owner was planning on chipping all loose concrete from the floor before patching all damage to regain the proper elevation and finish. The previous coating did not provide any chemical protection and was not effective at preventing the acid from attacking the concrete. The floor needed to be 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.



THE SOLUTION

Belzona 4311 (Magma CR1) was specified as a high-performance barrier coating with excellent chemical protection. 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.

EXCELLENT CHEMICAL RESISTANCE



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

Belzona 4311 (Magma CR1) is a solvent-free coating which isolates concrete and metal surfaces from aggressive chemicals, such as sulfuric acid. This product also withstands high compression and loading of vehicular and pedestrian traffic. Belzona 4311 (Magma CR1) has excelled as a versatile solution to combat chemical attack for over 30 years.