

Belzona Repairs and Protects Spillway from Leaking Oil

ID: 8956

Industry: Transport

Application: FPA-Floor Problem Areas

Substrate: Concrete

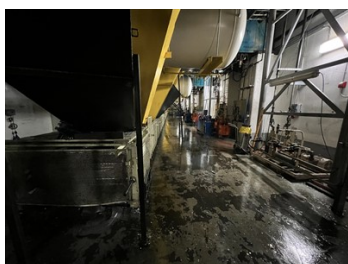
Products: Belzona 4111 (Magma-Quartz), Belzona 5831 (ST-Barrier), Belzona 9111 (Cleaner Degreaser)

Customer Location: Birmingham, Alabama

Application Date: December 2022

Problem

The concrete press pits of the Customer's auto part manufacturing plant had been contaminated by leaking oil, causing environmental risks as well as safety hazards for employees when cleaning machinery. The pits were positioned underneath four conveyor lines which consistently seeped oil onto the concrete. The concrete had previously been sealed only with ordinary paint, but after years in service it could not withstand the constant oil seepage.



Oily substrate prior to application



Belzona 4111 (Magma-Quartz) was used to build a cove at the joints with the perimeter walls, and overcoated with Belzona 5831 (ST-Barrier)



Final coat of Belzona 5831 (ST-Barrier) being applied to all accessible areas



The concrete underneath the conveyor lines were protected and made safer by the repair

Application Situation

The Distributor obtained approval to apply a 10ft by 10ft patch of Belzona 5831 (ST-Barrier) across the most contaminated section underneath one of the conveyor lines to seal the concrete against oil contamination. Aluminium Oxide was also used as an aggregate over the trial patch to form a non-slip tread, using different concentrations in order to achieve a tread which would provide good traction while also allowing leaking oil to be cleaned away using a squeegee.

Application Method

After 90 days, the trial patch was in excellent condition, leading to the Customer giving their approval for two of the four press pits to be coated during planned seasonal shutdowns. The results of years of oil seepage meant that the substrate required extensive cleaning using Belzona 9111 (Cleaner/Degreaser), steam cleaners and heated pressure washers to get the concrete as clean as possible for the application. The entire surface profile was then prepared using a diamond grinder to facilitate adhesion of Belzona 5831 (ST-Barrier), before a one inch cove was built using Belzona 4111 (Magma-Quartz) at the joints between the floor and the perimeter walls to relieve pressure from the seams. One coat of Belzona 5831 (ST-Barrier) was applied to sumps, flooring and to the

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ISO 9001:2015

FS 695214

ISO 14001:2015

EMS 695213

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bottom 12 inches of the walls at eight to ten mils Wet Film Thickness (WFT). Before the product had cured, Aluminium Oxide was spread at a rate of 50lbs per 100 square feet to create the desired tread. Finally, a top coat of Belzona 5831 (ST-Barrier) was applied at 10 to 12 mils WFT.

Belzona Facts

Subsequent site visits have shown that the coating is protecting the concrete extremely effectively and the tread is also much safer to walk on. The Customer was very pleased with the work and now has plans to coat the concrete underneath the two remaining conveyor lines and several other press pits, thanks to the success of the Belzona repair.

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