

Belzona saves the sump

ID: 9405

Industry: Chemical & Petrochemical
Application: TCC-Tanks and Chemical Containment Areas

Customer Location: Oklahoma
Application Date: May 2024

Substrate: Concrete

Products: Belzona 4111 (Magma-Quartz), Belzona 4151 (Magma-Quartz Resin), Belzona 4911 (Magma TX Conditioner), Belzona 5811 (Immersion Grade)

Problem

Chemical erosion had damaged this sump to the extent that there was no concrete left on the bottom of the sump, and the sides had major damage.



The sump in its original condition.



The sump after applying 3 buckets of 4111 to the bottom.



The sump with the plastic wrapped plywood former installed.



The sump after pouring a slurry mix of 4111 around the former. Application complete.

Application Situation

The concrete in this sump was heavily damaged by chemical erosion over several years. Upon cleaning it out it was discovered that the bottom of the sump was completely missing with only gravel and dirt remaining.

Application Method

We packed in about 6" of rock and gravel into the bottom of the sump and then applied 3 buckets of 4111 to the base. Once that was firm, we used 4911 to condition the walls and edges of the 4111 floor and inserted a plywood former box wrapped in plastic. We then mixed a slurry of 4111 by mixing a full batch according to the IFU and then adding one additional unit of 4151 to create a pourable mix that would fill around the former. Once cured, the former was easily removed leaving a perfect rebuilt sump. The sump and containment was then coated with Belzona 5811 to provide protection from the chemicals inside the containment.

Belzona Facts

The cost to remove the original sump, dispose of the old concrete and pour new concrete was comparable, but the biggest difference was in the ability to return the containment and sump to service faster. Also taken into consideration was in pouring a new concrete sump, there would be the issue of potential leaks between the new concrete and the old concrete. By using Belzona 4111

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ISO 9001:2015
FS 695214
ISO 14001:2015
EMS 695213

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manufactured under an ISO
9000 Registered Quality
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to rebuild it, there are no seams to leak as the Belzona has phenomenal adhesion to the existing concrete.

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