

Case Study

Products: MMA Primer, PUMA Thixo, PUMA, Novolac Epoxy

Resiprufe waterproof the Univar chemical bunds and sumps

Resiprufe worked with the client to fix problems with 2 small sumps, to protect the floor in the filling shed, to re-line a large sump and to seal and crack bridge the whole bund for an aggressive chemical.





The peroxide bund was built in the case of accidental damage to the bunds that could result in a catastrophic failure and therefore fill the bund. The bund is a concrete structure.

Peroxide is aggressive on bare concrete and could also penetrate through any cracks and seep into the ground water.

The client wanted a solution that would provide a crack bridging base layer combined with a top coat that would resist the Peroxide for a minimum 72 hours — this was determined by the worst case length of time from discovery to emptying.

Novolac epoxy was selected as the top coat – it resists peroxide long term. The base coat was PUMA which provides crack bridging to 1mm in case there are any unseen micro cracks.





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Sump repairs





Sometimes a sump is exposed to chemicals more than the general bund because it's the low point in the bund and also fills up with diluted peroxide after washing the floor. Sometimes we have encountered sumps that have literally dissolved and broken into pieces (see above pictures of before and after). We cleaned out the sump, mechanically prepared to remove loose friable materials and then patched up with PUMA resin tough flexible resin thixotropic to fill in vertical gaps. Finally, the sump was then sealed with the Novolac epoxy top coat.

Floor Coating - Filling Room



The filling room was used to fill drums from IBC containers. It is unavoidable to get drips and spills from time to time, and the floor was regularly washed down. Over time the concrete floor had started to be corroded.

Additionally the floor was falling away from the drain. We cut a channel in the centre and also ground the floor to create a fall from the back wall to the drain. We then installed a polyurethane screed which resists peroxide.





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Refurbishing the main sump



The large sump which held the rainwater, washing from the filling room, etc. was constantly exposed to diluted peroxide. Over time the surface wore away exposing large aggregates, slowly destroying the sump. We resurfaced the lining of the sump with Novolac Epoxy Mortar followed by 2 coats of Novolac Epoxy.

The installation team have confined space training and we operated a manned tripod winch rescue system and the fitter wore suitable breathing apparatus.

Main Bund





The finished bund certainly looked the part, a fantastic upgrade aesthetically, structurally and most importantly provided the 72 hour chemical resistance needed in the event of a failure.

Contact Resuprufe Ltd. to make your bund smart looking and safe.



