

CASE FILE

Operation Neutralize with Belzona® Magma Quartz!

The Customer

Power Station, Nanango, Queensland, AUSTRALIA

The Application

Badly damaged bund and plinth areas.



A badly degraded plinth.



The damage had also affected the walls.

Caustic residue had to be removed and neutralized before any rebuild works could begin.



First coat of Belzona® 5811 (black colour).



Bund area re-profiled with Belzona® Magma Quartz.



Bund area receives final coat.



Belzona® 5811 reaches full chemical resistance after just 5 days cure time.

The Problem

Caustic soda spills occurring over the years in the bund had significantly damaged the containment floor and plinth directly under the solenoids and valves. The parent concrete had been substantially damaged and needed to be repaired before it was totally eaten away.

The Products Used

Belzona® Magma Quartz

Belzona® 5811

Belzona® TX Conditioner

The Substrate

Concrete

The Application Method

The first step was to remove all deteriorated concrete. The entire bund and plinth area was then high pressure water blasted to remove crystallized caustic residue. Diluted Hydrochloric Acid was then broomed around the bund and plinths to neutralize any active caustic soda. The entire bund and plinth areas were rinsed and allowed to dry overnight. The next morning re-profiling work began by treating the concrete with Magma TX Conditioner to seal the concrete and enhance the adhesion of the Magma Quartz. The Magma Quartz was applied and allowed to cure for 5 hours before receiving it's first coat of Belzona® 5811 Immersion Grade, which was left to cure overnight. The final coat of Belzona® 5811 was applied the following day and reached full chemical resistance just five days later.

The Outcome

The power station is a 24/7 facility, so there is limited time for repairs, and the repairs must be done right. The Magma Quartz provides a strong backbone in areas as little as 6mm in depth. The three coat system applied to this repair will ensure long life for the bund!