

REPTECH REPAIRS AND RECOATS A HOT WATER PROCESS TANK WITH BELZONA

ID: 10334



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PROBLEM

The originally glass flake lining had begun to fail, with numerous areas of corrosion identified during a routine inspection. The roof of the tank was worst affected, and holes had appeared in several locations. The storage tank is a critical piece of equipment, supplying hot, potable, water to the dairy for a number of different processes and could only be out of service for a short window of time during the winter shut.

APPLICATION SITUATION

The elevated operating temperature and need for a potable safe coating had severely limited the options available for this tank. Fortunately, the client's inspector had worked with Reptech before and was able to recommend us for the job. We were able to offer the client a comprehensive Belzona solution for the repair, and re-lining that was potable safe, rated for high temperatures and could be completed in line with their shut-down schedule. Furthermore, we were able to offer them a ten-year warranty on the work, based upon existing projects we had completed with similar Belzona materials.

APPLICATION METHOD

The entire tank was scaffolded and abrasive blasted using steel grit to achieve a SA 2½ blast standard with a surface profile of 75 microns. The ambient conditions and blast standard inside the tank were maintained using a heater, which kept the relative humidity below 40% and the temperature at approximately 25°C. All holes and defects were repaired using either blasted steel plates or Belzona 9341 reinforcement tape, depending on the size of the defect, in conjunction with Belzona 1111. Belzona 5892, selected for its high-temperature resistance and potable water certification, was then spray-applied in accordance with the specification over the entirety of the tank walls and roof.

Stripe coats were applied as soon as the first coat had sufficiently stabilised. A second coat of Belzona 5892 Grey was then spray-applied over the entirety of the walls and roof. Following post-cure, the coating was spark-tested, and any remedial work was carried out in accordance with the specification. Once the repairs had successfully passed the final spark test, the scaffolding was removed and the same process was repeated for the tank floor. This comprised blasting and cleaning the surface, carrying out the necessary repairs, applying a first coat of Belzona 5892 White, applying the stripe coats, and finally spray-applying the Belzona 5892 Grey topcoat.

BELZONA FACTS

The entire project was completed in under four weeks, well within the time allocated for the shutdown and in line with the original cost estimate, with the exception of the additional plate bonding works, which fell outside the original scope. Combined with the 10-year warranty, the successful completion of the project resulted in a highly satisfactory outcome for the client.

INDUSTRY

Food & Drink

LOCATION

Fonterra Lichfield, state highway 1, Lichfield 3482

APPLICATION DATE

June 2026

PRODUCTS

Belzona 1111 (Super Metal)
Belzona 5892

SUBSTRATE

Carbon steel

PHOTOS

1. Steel grit was used to ensure efficient removal of the original glass-flake coating and hot air was pumped into the tank to ensure favourable ambient conditions overnight, holding the blast at SA 2½
2. Holes and pitting were repaired with Belzona 1111 (Super Metal), Belzona 9341 and doubler plates.
3. The first coat of Belzona 5892 white was spray applied; complex geometries received a Belzona 5892 Grey stripe coat the following morning (well within the overcoat window). As soon as this was completed a topcoat was sprayed in B5892 Grey.
4. Finally, the scaffolding was removed, and the process was repeated for the tank floor, ensuring that the previously coated walls were protected.

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