

CASE FILE

Keeping the lights burning with Belzona® 1831!

The Customer

Power Station, Western Australia, AUSTRALIA

The Application

The leak repair was to the bushing of both the blue and red phases of the 330kV transformer.



Cleaning the sealing surface



Applying the impregnated terylene strip



Finished profile



Brushing over the impregnated terylene strip



Finished overall profile

The Outcome

This is a major transformer and is responsible for supplying electricity to a large part of the city. The replacement bushing also had a significant lead time and the consistent filling of the existing bushings was both time consuming and expensive.

The Problem

The caulking sealing the ceramic bushing had degraded and caused the 50 litres of mineral oil to leak out prematurely which in turn decreased the operational efficiency of the unit.

The repair had been attempted in the past using a competitor product but with limited success.

The Products Used

Belzona® 1831 UW-Metal
Belzona® 9431 Reinforcing Membrane
Belzona® 1291 ES-Metal Stick (where necessary)

The Substrate

Rough ceramic and mechanically abraded steel/epoxy contaminated with oil.

The Application Method

A vacuum was drawn on the unit to stem the leak by reducing the head pressure from the remaining oil. The substrates (steel/existing epoxy) were roughened using an electric MBX Bristle Blaster machine. Any excess oil was wiped away using acetone. The surface was first 'wet-out' by applying the 1831 with a short bristled brush. The 9341 membrane was also 'wet-out' and placed over the leaking area. Additional 1831 was finally applied over the top of the membrane and smoothed off. This was allowed to cure prior to removing the vacuum or filling with oil. The repair was carried out in accordance with TCC-01 and the relevant IFU's.