

# BELZONA SOLVES LONG TERM LEAK PROBLEMS AT ELECTRICITY SUBSTATION

ID: 4222

**Industry:** Power  
**Application:** VPF-Valves, Pipes and Fittings  
**Substrate:** Mild Steel  
**Products:** \* Belzona® 1221 (Super E-Metal) ,  
\* Belzona® 1161 (Super UW-Metal) ,  
\* Belzona® 5831 (ST-Barrier) ,

**Customer Location:** Electricity Substation, UK  
**Application Date:** September 2012

## Problem

For several years, the transformer had been suffering from extremely high discharges of transformer oil. Following full survey, oil discharges were evident at many of the flange and bolt joints on equipment located in both the interior and exterior of the noise enclosure. A root cause and contributory to the oil leaks were the high voltage and low voltage bushings located to the noise enclosure rooftop.



## Photograph Descriptions

- \* Three HV bushings during survey ,
- \* LV bushing following substrate preparation and masking bolts ,
- \* LV bushing following the removal of one disposable former ,
- \* HV bushing completed including the encapsulation of bolt heads and coating with Belzona® 5831 for long term protection ,

## Application Situation

Exterior/rooftop of Super Grid Transformer HV & LV bushings

## Application Method

Application was carried out in accordance with modified versions of Belzona Know-How System Leaflets VPF-8 & 11. After preparing the surfaces active leaks were sealed with Belzona® 1291 or Belzona® 1221. The flange joints were then sealed by applying Belzona® 1161 incorporating Belzona® 9341 (Reinforcement Tape). The bolt and nut heads together with the male studs were fully encapsulated using disposable formers containing Belzona® 1161. Once cured, the formers were removed and all prescribed repair areas were coated with Belzona® 5831.

For more examples of Belzona Know - How In Action, please visit <https://khia.belzona.com>

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

Belzona products are  
manufactured under an ISO  
9000 Registered Quality  
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## Belzona Facts

Six bushings were successfully sealed and in recharging the transformer with oil to the correct level, the bushings did not show any visual evidence of leaking.

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