

STOPPING DAMAGE AND CUTTING HEAT: BELZONA'S DUAL APPROACH TO REACTOR REPAIR

ID: 10300



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PROBLEM

Corrosion around the heating elements of 316L stainless steel acrylic reactors caused through-wall defects and live leaks. A local sales engineer from Belzona UK Ltd has visited the site and demonstrated leak sealing for through-wall defects using Belzona 1511. This repair has been successful and is performing well. However, new weak areas within the reactor have now penetrated the steel, leading to additional live leaks.

APPLICATION SITUATION

Previous repairs to the reactors had been successful and were performing well. However, new weak areas within the reactor had penetrated the steel, leading to additional live leaks. Belzona UK were requested to propose a long-term solution, along with offering a cool-to-touch solution to reduce risk of contact burns.

APPLICATION METHOD

Once leaking areas were identified and marked, the surface was grit blasted to achieve the required substrate cleanliness standard SA 2½ and a minimum profile of 75µm.

All substrate defects within the area are repaired using Belzona 1511 (Super HT-Metal), including surface reprofiling and filleting where necessary.

Belzona SuperWrap II system was then applied over the entire area in three layers with a 50/50 overlap design, before wrapping with consolidation tape.

Finally, Belzona 5871 is applied. Belzona 5871 is a thermally insulating coating, providing protection against contact-burn injuries, whilst also eliminating corrosion and problems associated with Corrosion Under Insulation (CUI), resulting in improved safety, durability and efficiency.

BELZONA FACTS

The integrity of the reactor was restored, offering long term protection against the effects of corrosion under insulation. The cool-to-touch solution also reduces heat on metallic substrates to below 60°C, eliminating risks of contact-burn injuries.

INDUSTRY

Chemical & Petrochemical

LOCATION

Kidderminster

APPLICATION DATE

November 2025

PRODUCTS

Belzona 1511 (Super HT-Metal)

Belzona SuperWrap II

Belzona 5871

SUBSTRATE

Other

PHOTOS

1. Stainless steel acrylic reactors showing signs of corrosion and through-wall defects
2. Belzona SuperWrapII system applied to reactor
3. Belzona 5871 is spray applied on top of Belzona SuperWrapII system
4. Completed application has solved corrosion issues, offered long- term protection and reduced risks of contact burns

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