

Belzona Solution for Tank Leak Repair by Plate Bonding Method

ID: 10023

Industry: Other

Customer Location: RAS AL KHAIMAH, UNITED ARAB EMIRATES

Application: TCC-Tanks and Chemical Containment Areas

Application Date: September 2025

Substrate: Carbon steel

Products: Belzona 1161 (Super UW-Metal), Belzona 9611 (ES-Metal)

Problem

A customer encountered a significant issue with their fire water tank, where a leak had developed in the wall, resulting in a hole. This problem was causing operational disruptions and posed a risk to their processes. To minimize downtime and restore normal operations as quickly as possible, an immediate and effective repair solution was required.



A leak in the wall of the customer's fire water tank created a hole and disrupted operations.



Following cleaning, the substrate was grit-blasted, and Belzona 9611 (ES-Metal) was applied to effectively seal the leak.



To strengthen the repair area, Belzona 1161 (Super UW-Metal) was applied before proceeding with plate bonding.



Belzona 1161 (Super UW-Metal) was applied via the plate bonding method.

Application Situation

To address the hole causing operational disruptions, a high-performance repair solution was required-capable of withstanding internal pressure over the long term. The selected product needed to provide a durable and reliable seal, ensuring lasting integrity and preventing recurrence of the issue. By implementing a robust, pressure-resistant repair, normal operations could be rapidly restored, while also enhancing the tank's longevity and overall performance.

Application Method

The application was carried out in full compliance with Belzona Know-How System Leaflets TCC-1, TCC-5, ensuring strict adherence to established procedures and industry best practices.

1. After thorough cleaning, the surface plate was grit-blasted using power tools to achieve the required profile and prepare the substrate.

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

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2. Belzona 9611 (ES-Metal) was applied initially to seal the leak, followed by Belzona 1161 to reinforce the material prior to plate bonding.

3. A subsequent layer of Belzona 1161 (Super UW-Metal) was applied to further rebuild the surface and achieve a smooth, finished profile.

Belzona Facts

Belzona 1161 is a 2-part composite material for metal repair and resurfacing based on a 100% solids, surface-tolerant epoxy resin reinforced with silicon steel alloy. This composite material is specifically designed for application to wet and oil contaminated surfaces, as well as for underwater applications. It is easy to mix and apply without the need of specialist tools and can be machined using conventional tools.

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