

Belzona Superwrap II Restores Strength to 26 Metre Sewage Pipeline

ID: 8862

Industry: Water / Wastewater

Application: VPF-Valves, Pipes and Fittings

Substrate: Carbon Steel

Products: * Belzona SuperWrap II ,
* Belzona 1121 (Super XL-Metal) ,
* Belzona 4131 (Magma-Screed) ,

Customer Location: Water Authority, Scotland

Application Date: August, 2021

Problem

The heavily corroded, 900mm diameter pipe is the main sewage line for a nearby town and if the issue was not rectified, there would be a huge cost for the asset owner. Pipe replacement was not an option due to complications in isolating this section. As this type of overland pipe is exposed to the elements, it often corrodes more than buried sections.



Photograph Descriptions

- * 1. Corroded sewage pipe ,
- * 2. Plate bonded in place ,
- * 3. Completed wrap, Release film in place, Fabricated box ,
- * 4. Pipe back in service with Belzona SuperWrap II completed ,

Application Situation

A 26-metre pipeline which was leaking sewage into a farmer's field causing environmental pollution.

Application Method

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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Firstly, the area was cleaned, and the pipe surface was grit blasted to the required standard. The live leaks were repaired by bonding prefabricated Belzona SuperWrap II plates over the leaking areas using Belzona 1121 (Super XL-Metal). Next, to provide complete protection, three layers of Belzona Superwrap II were mixed and applied to the external surface of the pipe. Once the pipe wraps had been applied, Belzona 9382 release film was applied around the wrap system and allowed to cure overnight.

Belzona Facts

An area of pipe around the support was very weak and required some reinstatement. The area had a very thin wall and grit blasting in this area was not possible, due to the inevitability of blasting through the pipe wall and causing catastrophic failure and a major environmental leak. Belzona UK was able to come up with an innovative solution to this unusual situation which involved the fabrication of a box using Belzona SuperWrap II to encapsulate the entire area including the support. This would then collect the leaking material from the pipe and when full, it would be strong enough to hold the material inside the box allowing the sewage to continue to run through the pipe with no further leakage into the environment.

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