

# Coating Internal Surface of Cooling Water Pipeline

ID: 7981

**Industry:** Power  
**Application:** TCC-Tanks and Chemical Containment Areas  
**Substrate:** Carbon Steel  
**Products:** \* Belzona 5811 (Immersion Grade) ,  
\* Belzona 1341 (Supermetalguide) ,

**Customer Location:** Ratchaburi, Thailand  
**Application Date:** 2018

## Problem

The cooling water (CW) pipe is the main focus for coating application due to failure of a previous coal tar epoxy coating on the internal surface of the pipe. The coal tar epoxy suffered from low adhesion and subsequently suffered from major blistering and peeling after three years. The customer was keen to find a high quality coating for long lasting service.



## Photograph Descriptions

- \* 1. Internal Corrosion ,
- \* 2. 2 coats of Belzona 1341 ,
- \* 3. 2 coats of Belzona 5811 ,
- \* 4. Spark tested Spark test of Belzona 1341 ,

## Application Situation

Coating Internal Surface of Cooling Water Pipeine

## Application Method

Copper slag was used to blast the pipe to achieve a minimum profile of 75 microns and a surface cleanliness of SSPC-SP10/SA 2.5 for better adhesion. The surface profile was measured using TESTEX Tape. Salt contamination was measured to having less than 4 µg/cm<sup>2</sup>. Two layers of Belzona 5811 was applied at a total thickness of 400 microns in laminar flow areas and two layers of Belzona 1341 at a total thickness of 400 microns in turbulent flow areas. After fully cured, the dry film thickness was checked and monitored for pinholes.

## Belzona Facts

Prior to this, we have offered Belzona solutions to the customer several times. Unfortunately, the customer has seen Belzona

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

Belzona products are  
manufactured under an ISO  
9000 Registered Quality  
Management System.

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Products to be very expensive and over spec to be used. So we did pull off adhesion tests where we compared Belzona products to other products. As a result, we were able to prove the quality of Belzona products and gain the customers acceptance. The project started in 2005, until now we've coated over 12,000 m2.

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