# Belzona 4111 Repairs Shell and Secures Wedge Liners in a Ball Mill

ID: 7732

Industry: Steel & Metal Processing Customer Location: Metal producer, Mykolaiv, Ukraine

Application: TCC-Tanks and Chemical Containment Application Date: 2016

Areas

Substrate: Shell and Liner

Products: \* Belzona 4111 (Magma-Quartz),

#### Problem

The wedge liners did not fit together perfectly. Overtime, they caused damage to and distorted the ball mill shell underneath. The refinery wanted to repair the damage and secure the wedge liners. The environment included bauxite and an alkaline solution at 80°C (176°F).









#### **Photograph Descriptions**

\* 1. Ball mill, outer view 2. Ball mill, inner view 3. Shell repaired 4. Wedge liner secured,

### **Application Situation**

This is one of the biggest non-ferrous refineries in Europe. It has been in operation since 1980 with seven ball mills continuously working ever since. The ball mills are used to grind and blend materials, reducing their size by impact as the balls drop from near the top of the shell. Wedge liners protect the shell from damage.

## **Application Method**

The application was carried out in accordance with Belzona Know-How System Leaflet TCC-9.

#### **Belzona Facts**

Belzona 4111 was applied to resurface the shell and fill the gaps in the wedge liner. First application was completed in 2016 onto two ball mills, followed by two more in 2017 and another two ball mills in 2018.

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