

# Belzona Saves Cast Aluminium Mandrel

ID: 8699

Industry: Mining & Quarrying  
Application: MPT-Mechanical Power Transmission

Customer Location: Leicester  
Application Date: December 2021

Substrate: Aluminium  
Products: \* Belzona 1511 (Super HT-Metal),

## Problem

*The surface of the mandrel had been compromised and the engineering company's brief was to return the mandrel to a smooth surface finish.*

*The mandrel is used as a mould to make rubber condoms which, in turn, hold wet clay.*

*The clay is then processed to produce exactly the right consistency of moisture in order to become the perfect production material. Included in the parameters for repair was that the mandrel, and subsequent cast condom, would be fired in an autoclave to around 150 degrees centigrade.*



## Photograph Descriptions

- \* 1. Belzona 1511 applied ,
- \* 2. Belzona 1511 applied (close-up) ,
- \* 3. Mandrel repair complete with Belzona 1511 smoothed ,
- \* 4. Close up of completed works ,

## Application Situation

A workshop situation gave a producer of aluminium moulds the opportunity to repair defects on the surface of a 450mm x 4m tapered mandrel, used to create rubber condoms for the clay and pottery industry.

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

Belzona products are  
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## Application Method

The product was applied in accordance with Belzona System Leaflet MPT-1. After surface preparation, the Belzona 1511 was applied to the surface and smoothed down until it sat flush with the aluminium substrate.

## Belzona Facts

The application was carried out by the engineering company, saving costs against employing an applications contractor. The alternatives would have been aluminium welding and machining. The hot works could have compromised the 4m Mandrel. Using 1kg of Belzona 1511 enabled a swift, cold applied repair and a rapid return to service.

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