

# BELZONA SOLUTION TO ABRASION AT COAL MINE

ID: 1519

Industry: Mining & Quarrying  
Application: SHM-Solids Handling Machinery

Customer Location: Coal Mine, Southern Illinois  
Application Date: August 2010

Substrate: Carbon Steel  
Products: \* Belzona® 1811 (Ceramic Carbide) Belzona® 1391 (Ceramic HT),

## Problem

Excessive wear and costly replacement brought on by abrasion from coal dust. The coal chute and lateral fitting have an average operating temperature of 200°F. Due to excessive wear pipes were only lasting a few weeks before needing to be replaced. A cost effective alternative to replacement was being sought.



## Photograph Descriptions

\* View of holed lateral fitting Close up of inside damage Interior view of completed application Outside view of completed application ,

## Application Situation

Transition pipe handling coal dust at 200°F.

## Application Method

Application was carried out using a modified version of Belzona Know-How System Leaflet SHM-13. The interior cavity was filled with Belzona® 1811 and a "hard back" was formed on the outside to give maximum thickness for abrasion resistance. Inside was lined with Belzona® 1391 overlaid with aluminum oxide. application was then post cured for maximum resistance.

## Belzona Facts

Belzona is a proven solution in abrasive environments offering simple and cost effective alternative to replacement which this client

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  
Management System.

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was actively seeking.

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