

Abrasion protection of slag dosing cyclones and pipework at a cement plant with Belzona 1813

ID: 10322

Industry: Cement
Application: SHM-Solids Handling Machinery

Customer Location: Southern Croatia
Application Date: April 2026

Substrate: Carbon steel
Products: Belzona 1813

Problem

Ground slag added to cement clinker was causing severe abrasive wear inside the separator cyclones and associated pipework. Continuous material flow gradually reduced the steel wall thickness, increasing the risk of breakthrough and unplanned shutdowns between scheduled annual maintenance intervals.



Slag dosing cyclones and connected pipework from the outside.



Customer-repaired area with welded steel plates before Belzona application.



Belzona 1813 application in progress



One affected area after Belzona 1813 application.

Application Situation

The customer required a reliable sacrificial lining to control abrasion and extend the service life of the equipment until the next planned annual turnaround. Prior to the Belzona application, the customer repaired the most damaged and perforated areas in-house by welding steel plates over the affected sections. Due to the abrasive nature of the conveyed slag and a maximum operating temperature of 120°C, Belzona 1813 was selected as the most appropriate solution. In total, 500 kg of Belzona 1813 was used to protect the most exposed areas.

Application Method

The application was completed in accordance with Belzona Know-How System Leaflets SHM-8, SHM-13 and the Belzona 1813 Instructions for Use. Following the customer's mechanical repairs to the damaged sections, the steel substrate was abrasive blasted, degreased and thoroughly dedusted prior to application. Belzona 1813 was then applied at a uniform thickness of 3 mm using Belzona application tools and masonry spatulas, creating a continuous abrasion-resistant barrier over the cyclone and pipework surfaces.

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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Belzona Facts

Belzona was chosen based on the customer's previous successful experience with Belzona abrasion-resistant systems. Belzona 1812 had already proven effective on pipe elbows, separators and cyclones in cement and raw material transport systems. For this application, Belzona 1813 offered the required abrasion resistance together with suitability for the elevated operating temperature, providing a practical solution for reducing the risk of production disruption.

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