

Belzona repairs concrete wall suffering from biomass abrasion

ID: 10321

Industry:	Power	Customer Location:	Centro de Portugal
Application:	WPA-Wall Problem Areas	Application Date:	June 2026
Substrate:	Concrete		
Products:	Belzona 4111 (Magma-Quartz), Belzona 4911 (Magma TX Conditioner), Belzona 9111 (Cleaner Degreaser)		

Problem

This concrete wall is part of a biomass conveying system that feeds the boiler used for electrical power generation. Over the years, the wall has progressively worn down due to the abrasion caused by the transport of wood branches and logs. In 2019, we carried out a trial on an area of approximately 1 m², which can be seen in the first photo on the left. The conveyor continued operating for almost seven years, during which the customer confirmed the excellent performance of the test area. As a result, they decided to request a quotation for the treatment of the entire lower half of the walls, in order to prevent the deterioration from spreading further.



Condition of the structure prior to the repair work.



Application of Belzona 4111 (Magma-Quartz).



Application of Belzona 4111 (Magma-Quartz).



Work successfully completed.

Application Situation

The alternative solution the customer had originally envisaged was to line the walls with stainless steel plates. For several years, they informed us that this was the option they intended to pursue. However, over time, they observed that the trial area we had installed was performing extremely well, and consequently requested a quotation for the full scope of work.

The equipment was out of service for approximately one week before being brought back into operation, while our intervention itself was completed in just two days.

Application Method

The work procedure consisted of cleaning the walls with high-pressure water jetting, which was carried out by the customer. Two days later, we began our part of the project by applying Belzona 4911 Magma TX Conditioner, followed by rebuilding and resurfacing with Belzona 4111 Magma-Quartz.

The tools used included brushes, Belzona plastic applicators, and finishing tools for smoothing and levelling the wall surfaces.

Belzona Facts

This solution proved to be significantly more cost-effective than lining the walls with stainless steel and was also less intrusive to install. It was likely a more effective option as well, since there was no guarantee that the metal plates would remain securely fixed over time and not become detached during operation.

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

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