

Belzona 1391S Applied to New Cyclonic System

ID: 9385

Industry: General Industry
Application: TCC-Tanks and Chemical Containment Areas
Substrate: Carbon steel
Products: Belzona 1391S

Customer Location: South Africa
Application Date: August 2023

Problem

The customer's existing equipment was badly damaged, with various protrusions having been repaired on a breakdown basis using Belzona cold bonding techniques. The loss in production due to loss of flow rate, pressures and resultant loss of product was becoming unacceptable to the customer, as well as the constant ingress of rainwater into the process, causing large lumps and obstructions that had to be constantly cleared manually. The customer worked with a consulting engineering firm to fabricate and install a new cyclonic system during a pre-planned shut period.



Newly fabricated cyclones ready for coating



Internals of the cyclones coated



Cyclone internals coated ready for delivery



Coating of Cyclones 1 & 2 - showing internal coating completed

Application Situation

A global leader in manufacture of animal feed additives and fertilizers had ongoing erosion and corrosion problems inside their cyclonic system, which is used to dry product into a powder form from its moist state.

The raw materials include phosphoric acid and lime powder and so the resulting process material is both corrosive and erosive to the equipment. The temperature inside the cyclones spikes at 140-160 degrees Celsius due to the furnace being used for drying.

Application Method

Belzona 1391S was specified due to its ability to withstand chemical attack from the phosphoric acid, as well as the erosive nature of the lime powder/raw materials, and exposure to high temperatures. Belzona 1391S was applied using heated airless equipment as explained in the Information for Use Sheet.

Belzona Facts

Belzona had the key benefit of being specified to withstand all process challenges, with the added benefit of being applied at a finished DFT that will not significantly change the finished build heights and clearances. It is also easy to apply, and repairable should mechanical damage occur. Flawless performance has been observed with a very satisfied local and international customer. There was no delay to the shut, and since installation, there has been an increase in production output.

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

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9000 Registered Quality
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