

Injection saves roofing manufacturer time and money

ID: 7731

Industry: General Industry
Application: MPT-Mechanical Power Transmission

Customer Location: Brampton, Ontario, Canada
Application Date: October 2013

Substrate: Steel
Products: <div>Belzona 1321 (Ceramic S-Metal)</div>
<div>Belzona 9111 (Cleaner/Degreaser)</div>
<div>Belzona 9411 (Release Agent)</div>

Problem

A roller in the production process had become damaged due to the failure of a bearing.



Photograph Descriptions

- * Damaged shaft with Belzona 1321 brush applied to the prepared substrate prior to forming technique. ,
- * Mixed Belzona 1321 being loaded into injection cartridge tube ,
- * Former showing vent ports whilst material is allowed to cure ,
- * Finished application with no additional machining required. ,

Application Situation

An international manufacturer founded in 1951, producing building paper, coated roll roofing and shingles. As part of the manufacturing process, they move materials around via conveyors and rollers. Mechanical damage to shafts is a common occurrence and affects the amount of production that can be achieved.

Application Method

Belzona Know-How system leaflet MPT-2 for rebuilding damaged shafts using forming techniques was chosen for the repair. The application involves the manufacture of a suitable split former, which can be reused to repair additional shafts. The damaged substrate is prepared by a mechanical grinder and undercut a minimum of 1/16 inch (1.5mm), any contamination is removed with the use of Belzona 9111. Belzona 9411 was applied to the former prior to assembly. Belzona 1321 was then mixed in accordance with the IFU and loaded into an injection cartridge for injection into the former, air is vented out of the former ensuring that the cavity is filled 100% with no voids.

Belzona Facts

For more examples of Belzona Know - How In Action, please visit <https://khia.belzona.com>

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FS 695214
ISO 14001:2015
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The traditional alternative for this application was to apply a weld overlay. This hot work process would warp the shaft and require remedial work to straighten. Once the shaft had been straightened the shaft would be machined back to the required size. Belzona avoids the need for hot work and associated straightening. The process using Belzona takes approximately 6 hours before the shaft can be reinstalled. The traditional method was a minimum of 72 hours. Saving both time and money.

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