

Raw Corn Unloading Chute Avoids Wear with Food-Grade Coating

Food and Beverage/Corn-Grain Processing ARC MX FG Case Study 153

Challenge

Issue

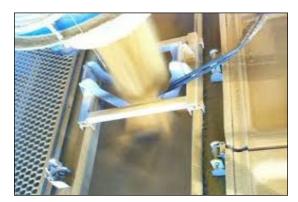
A raw corn rail car unloading its chute had severe abrasive wear that required welding or replacement every 6 – 12 months.

Goals

Increase run time to 24 months and reduce maintenance shutdown for repairs.

Root Cause

The impact of raw corn poured out of rail car caused impact and abrasion wear on unprotected corn chute.



Before: hute in service.

Solution

Preparation

- Tack weld expanded metal to existing corn rail chute surface.
- Grit blast to surface 3+ mil angular profile.

Application

Apply ARC MX FG at 3/8" nominal thickness to tack welded metal and blasted chute surfaces.

ARC MX FG is a ceramic-reinforced epoxy coating which protects surfaces against dry and wet slurry abrasive flow.



In process: ARC MX FG being applied to prepared and tack welded surface.

Results

Client Reported

Repair performed 10, 2020. Monthly inspection of chute showed no significant wear.



After: completed chute.

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