

# Ceramic Brushable Case Study

## Improving Efficiency of Extruder Barrels

Ceramic Brushable Blue provides an abrasion resistant, ultra-smooth surface to improve the efficiency of barrels in several pug mill putty extruders



*Aluminium barrels in the putty extruders suffering from wear which was impacting on efficiency*

### Defect

Over time, silica-filled putty extruded from the pug mills had caused abrasive wear to the surface of the aluminium barrels as it passed through.

This wear combined with the rough cast finish of the aluminium had caused the flow rate of putty from the pug mills to slow, impacting on efficiency.

To help the extruders run more efficiently, it was decided to smooth the barrels off and make them more resistant to future abrasion.



*Ceramic Brushable Blue was easy to apply to the barrels using a traditional paintbrush*

### Solution

Machining the barrels was quickly ruled out as a repair method because it would have been difficult, expensive and time consuming.

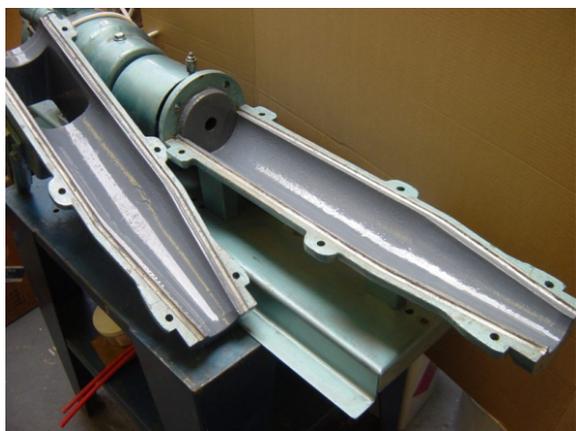
It was instead decided to paint the barrels with **Ceramic Brushable Blue**, a ceramic-filled epoxy coating reinforced with silicone carbide for ultimate hardness.

The coating was easy to apply using a traditional paintbrush and a work time of 90 minutes allowed large quantities to be mixed without the threat of premature curing.

### Result

Ceramic Brushable provided a toughened, reinforced layer of protection against abrasion and an ultra-smooth, non-stick finish. This enabled quicker and easy cleaning of the barrels, offering further improvement in efficiency for the pug mills.

Every pug mill extruder was coated in one day. Full cure was achieved in 24 hours, resulting in minimal disruption to production.



*Completed repair. Every extruder barrel was provided with an abrasion-resistant, smooth finish*