

Ceramic Supergrade Case Study

Metal Machinery Repair Saves \$60 million

A three week lead time replacing damaged metal machinery at a Ball Mill in Puerto Rico looked set to cost a company \$60 million in lost revenue – until Sylmasta Ceramic Supergrade carried out a repair in under 24 hours



Significant crack in the machine part caused when maintenance work was carried out



Ceramic Brushable epoxy paste applied to fill in and seal the crack in the machinery



Epoxy paste during the curing process



The completed repair with the outer ring fitted back onto the machine

Defect

During maintenance work at the Ball Mill, a part had been forced, causing a significant crack to a metal part on the outside of the machine through which water was leaking into the inside shell.

A replacement part cost \$200,000, would have to be flown in from Germany, required a specialist contractor from Europe to fit, and had a three week delivery time.

Production at the Mill was worth \$4 million a day. To shut the site for three weeks waiting for the replacement would cost \$60 million in lost revenue.

Solution

The Ball Mill instead carried out a repair using **Ceramic Supergrade**, a two-part epoxy paste reinforced with silicon carbide for ultimate surface hardness manufactured for the repair and refurbishment of heavy machinery.

Ceramic Supergrade was applied with a trowel, spread over and pushed into the crack to provide a hard-wearing, abrasion resistant filler to repair the damage.

Result

The repair was carried out on a Sunday whilst the site was shut for the weekend. Ceramic Supergrade has a full cure time of 24 hours.

When the Ball Mill reopened for business on the Monday, it was operating at full capacity with tens of millions of dollars saved.