

# Chockfast

## Chockfast® Grouting Compounds Increase Foundation Service Life at Cement Plant

In cement manufacturing, the raw mill machine is a vital piece of equipment that is used to pulverize raw materials such as limestone, clay, and shale. The rotating table and rollers located inside the raw mill machine create the pressure and shear necessary to crush and grind the rock into small pieces. The crushed material is then sent to a cement mill and kiln to yield the final output.

### Problem

At a cement manufacturer, the raw mill machine's foundational plate faced vibration and cracks due to a lack of proper grouting. In addition to this, a significant gap existed between the concrete and the raw mill machine plate. The client was looking for a grouting solution that would prevent vibration, fill in the gap, and ensure a strong foundational surface.

### Solution

**Chockfast Red and Chockfast Orange grouts were installed due to their high compressive strength and strong bonding to concrete.**

To prepare for the Chockfast Red application, the previous foundational concrete was removed, and the surface was roughened to enhance adhesion. Chockfast Red was mixed using an in-house mortar mixer, poured into the foundation forms, and left to cure for 24 hours.

The metal foundation plate was installed over the Chockfast Red grout and funnels placed throughout the plate in order to install Chockfast Orange underneath the equipment. Chockfast Orange epoxy grout was then poured into the metal forms of the foundation plate and left to cure for 24 hours.



*Installation of Chockfast Red into concrete foundation*



*Cured Chockfast Red after installation*



*Chockfast Orange poured into raw mill machine plates*

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## Project Outcome

### Long-Term Vibration Resistance

The raw mill machine is a heavy piece of machinery that is susceptible to vibration due to misalignment, wear, and imbalance from rotating equipment components. Both Chockfast Red and Chockfast Orange provide outstanding vibration resistance due to their ability to provide high impact strength. The installation of Chockfast Red and Chockfast Orange will equip the raw mill machine plate with a sturdy, vibration resistant foundation, successfully ensuring the alignment of the equipment.

### Limiting Equipment and Plant Downtime

Without a proper grouting solution, this cement plant would have to replace the raw mill machine and install new concrete. This costly option would still be unsuitable as maintenance repairs would still last only weeks. With Chockfast Red and Chockfast Orange grouts, this cement plant was able to mix and apply the grouting in-house with little equipment. With Chockfast grouting compounds, total maintenance time for the raw mill machine foundation took only 2 days, allowing plant operations to resume swiftly.

### Repeatable Solution

The customer was so pleased with the results of the Chockfast Red & Orange foundation repair that they have launched the repair of two more raw mill foundations within the plant. This improvement will protect the raw mills from vibration and extend the life of the equipment significantly.



*Chockfast Red mixed in-house*

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