

Ceramite® Case Study - Major Steel Producer - Coke Chute

Superior Performance in Wear Resistant Applications

Bulletin 0163

All Industries

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Ceramite® is a group of advanced castables exhibiting unique properties, such as extreme accuracy of casting, high abrasive wear resistance, mechanical strength and good resistance to high temperature, resistance to thermal shock conditions. Ceramite® is easy to mix, cast and shape in any size and is easy to work with in-situ, using the trowellable formulation. Ceramite® Trowellable qualities have been used to replace hardened steel, fused cast basalt, rubber liners and ceramic tile. The key feature of Ceramite® Trowellable is the elimination of any and all joints that are the area first attacked by abrasive conditions.

Application



Failed Tile Areas



Wear Thru Shell



Easily Mixed



Trowel Application



Mating to Tile



A True Monolith

These photos illustrate a section of a coke chute located in the "stockroom" an area approx. 100 feet below the blast furnace. Coke and iron pellets are gathered for transportation to the blast furnace. The ceramic tile failed due to weld failure and joint penetration.

Ceramite® Trowellable was applied 2" thick to mate to the tile and reduced to 1.5" in all remaining areas.

After 17 Months



After 17 months in service with over 680,000 tons of coke processed, operations had an opportunity to inspect the chute. The Ceramite® had no failure with minimal signs of wear.

The customer stated that he would be putting BKR-F "everywhere he can find a place to put it".