



APPLICATION REPORT

Annode Casting Floor Rapid Repair

Industry: Non-Ferrous Metal Casting Facility

Equipment/Location: Cooper Smelter Anode Casting Floor

Problem: Thermal degradation and heavy traffic caused damage to conventional concrete floor.

Solution: Use Phoscrete 602 concrete to repair floor and get area back into service rapidly.



Installing Phoscrete as an overlay on existing concrete.



Waiting for final pour in the area to be repaired.



Installer finishing surface as Phoscrete material is poured.



Completed area of Phoscrete 602 repair.

Product Being Replaced: Conventional concrete

Savings Using Thermbond: The existing concrete was able to be repaired rather than replaced saving demolition time and reducing waste. Rapid installation and setting characteristics of Phoscrete 602 meant only two hours of down time versus days using conventional castables

Products Applied: Phoscrete 602 (formerly Phoscrete Hot Floor)

Method of Installation: Poured

Equipment Used: Paddle mixer, vibrator, concrete finishing tools



Scope of Work: The floor was well prepared by scarifying, providing an average depth of 60mm of rough textured concrete. Some old steel reinforcing bar remained in the old concrete and exposed to the Phoscrete repair. A small quantity of Thermbond Formula 18 B castable was installed into deep crevices near the Anode casting wheel (the hottest area of the floor) prior to the Phoscrete 602 castable overlay. Internal vibration was used with the TBF18B castable to move into the deep crevices and ensure full contact with the concrete substrate. Using a paddle mixer, the Phoscrete 602 mixed one unit at a time and the overlay was poured without formwork. The entire repair was completed in one hour and floor was fully set shortly after completion. The ambient temperature for this repair was 26°C.

Installation Date: 30 June 2006

Follow Up: July 2008 - Still in operation.

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