



## CASE STUDY:

### Precast Anode Launder Inserts with ARMORMAX® 28 SiC

#### EQUIPMENT / APPLICATION

##### Refining/Anode Launderers in Copper Smelter Anode Furnace in South America

- Current lining of brick, release agent, and sacrificial castable lining with performance of up to two months.
- Release agent and sacrificial lining applied every heat. One heat represents four hours and 250 MT copper.

#### PRODUCT

##### Allied created a custom precast shape design based on customer need.

- ARMORMAX® 28 SiC is a high strength, silicon carbide containing castable refractory product with proprietary additions.
- Superior alkali resistance with low abrasion loss and outstanding physical properties.
- High stainless-steel fiber content improves overall fracture toughness and thermal shock resistance.

#### INSTALLATION

- Shapes were installed over a backup layer of dry vibratable insulation. Joints and walls sealed with a plastic refractory.
- Installation complete in only a few hours.
- Launder segments positioned by hand crane.
- Shapes were prefired prior to installation to minimize heat up time.

#### RESULTS

##### Launder segments reached over 100 heats with NO SACRIFICIAL lining, resulting in over 400 hours of operation and over 25,000 MT of copper.

- Customer's goal was 80-100 heats.
- Copper build-up and slag on launders was easy to clean without damage to launder segments.
- Significant savings in material and labor costs.
- Customer is now using precast shapes in two launder systems with plans to expand this concept to other areas within the plant.



Precast Shapes prior to prefiring



Installing precast launder segments



Launder condition during and after 65 heats of use

Allied Mineral Products, Inc. supplies an entire line of monolithic refractories for the metals industry. For more information or a complete evaluation of your refractory requirements, please contact your local Allied representative.

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