



Anode Ovens

Paste Production for Manufacturing Green Anodes

Q

Question

How do you monitor the temperature of the heated paste to insure proper mixing?

A

Answer

Situation Analysis

In the production of green anodes, the basic raw material is called paste. It is a mixture of carbon and pitch. The dry carbon and pitch are put into a large mixing chamber that has oil or steam-heated walls. They are mixed together and heated until the paste reaches a temperature of 165°C (329°F). If the paste is too cold or too hot, it will not stay together when pressed into a block called a green anode. Of course, if the paste is too hot, then fuel is also being wasted. The proper way to install the infrared thermometer is to aim the sensor at the center of the paste in the mixer in order to achieve an accurate homogenous temperature.



A

Answer

Solution and Improvements

The solution to the problem is to use a Modline® 7, 76 series. When the temperature reaches 165°C (329°F), the mixer is shut off and the mix is dumped onto a conveyor. Because this is a very dusty process, an air purge is absolutely required and the sensor should be placed about 91cm (36 inch) away from the top of the mixer, with a long pipe attaching the air purge to the mixer. This is required because when the dry carbon is loaded into the mixer, the dust nearly explodes. The long sight tube and air purge prevent the dust from settling on the lens of the instrument.

Ircon Product

Modline 7, 76 series

Accessories

- Air-purge
- 91cm (36 in) sight tube with flange

Benefits

- Reduced scrap
- Fuel savings

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