QWISE-FM-SBJSGC-2019-RMH Company Standard

Hunan WISE New Material Technology Co., Ltd.

Powder sub-factory Powder product production process equipment safety technical regulations

Safety technical specification for two-band molybdenum wire reduction furnace

Approved by: Zhaohui LIU Prepared by: Liyun Yun Xing Wang
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- 1. Wear overalls, work shoes, gloves, and dust masks before operation.
- 2. Open furnace:
- 2.1 Carefully check the airtightness of the furnace door and various parts of the furnace body, check whether the push boat device, cooling water, temperature control instrument, etc. are normal, and find abnormalities and timely treatment;
- 2.2 After cleaning the furnace tube, close the furnace door, first open the exhaust, send hydrogen for a period of time, use the test tube to take the gas to make the blasting test, and determine the hydrogen in the front and bottom of the furnace after the furnace air is exhausted. Adjust the hydrogen flow rate, and check the air tightness of each part of the furnace again, and close the leak point with refractory mud. When blowing, the fire source is strictly prohibited within 1 meter;
- 2.3 Inform the duty electrician to increase the power supply, adjust the cooling water flow, and strictly follow the oven system to dry the oven.
- 2.4 During the oven process, check whether the instrumentation, cooling water, hydrogen flow, etc. are normal, and find abnormalities and timely treatment;
- 2.5 After the end of the oven,the hydrogen valve at the bottom of the furnace is closed,and the temperature of the furnace is measured by an optical pyrometer to be more than 0.5 m from the furnace door:
- 2.6 After reaching the process temperature, the boat starts to enter the boat. The first time, three boats can be entered, and then the process is executed.
- 3 During the production process, it should be checked whether the cooling water, hydrogen flow rate, furnace temperature control, etc. are normal. It is forbidden to open the furnace doors at both ends at the same time. The operator should stand on the side of the furnace door and open the furnace door to ignite first.
- 4. Under normal circumstances, the furnace is shut down: after the boat passes the high temperature zone, the temperature is lowered by the belt. After the boat is finished, the boat is stopped and the furnace door is closed. Adjust the cooling water and hydrogen flow rate appropriately. The front exhaust port is blocked with wet asbestos. When the temperature in the furnace drops to room temperature, the hydrogen

and cooling water are stopped.

- 5. Troubleshooting during production:
- 5.1 When the hydrogen is suddenly interrupted, the hydrogen should be shut off immediately, the loading and unloading should be stopped, the furnace door should be closed, and the front exhaust port should be blocked with wet asbestos to reduce the furnace temperature appropriately;
- 5.2 When the power is cut off,the loading and unloading should be stopped, the furnace door should be closed,the hydrogen flow should be adjusted appropriately,and the front exhaust port should be blocked with wet asbestos;
- 5.3 When the water is cut off,the loading and unloading should be stopped, the furnace door should be closed, the furnace temperature should be appropriately reduced, and the hydrogen flow rate should be adjusted;

When the compressed air is interrupted, the loading and unloading should be stopped. If the time is long, the furnace temperature should be appropriately reduced and the hydrogen flow rate should be adjusted.

5.5 Every class should clean equipment and on-site hygiene, keep it tidy, and work tools and materials should be placed according to regulations.

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