

QWISE-FM-PTZDS-2019

Company Standard

Hunan WISE New Material Technology Co., Ltd.

Powder sub-factory

Powder product Charcoal process

Operating instructions

Approved by : Zhaohui LIU Prepared by: Liyun Yun Xing Wang

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Powder sub-factory Operating instructions

Charcoal

1 main raw and auxiliary materials

1.1 Main raw materials: metal powder, oxide powder and carbide powder of various specifications.

1.2 Main auxiliary materials: carbon black (powder, granular), additives (powder, granular).

2 major equipment and tools

2.1 Main equipment: ball mill.

2.2 Main tools: 20kg case scale, 500kg table scale, 50kg electronic scale, stainless steel insert barrel and packaging barrel.

3 job quality requirements

3.1 After ball-mixed powder, all kinds of raw materials and auxiliary materials should be mixed evenly. No carbon black hard particles are visually inspected, and the mixed materials are not segregated.

3.2 The accuracy of charging is controlled within $\pm 0.05\%$.

4 steps and essentials

4.1 Go to the technical group to receive the technical notice of the technical requirements for the carbon blending or the material rework technical requirements notice.

4.2 Preparation before the class.

4.2.1 Turn on the exhaust and lighting.

4.2.2 Check whether the ball mill and crane system are normal, whether the tools are complete, and correct the zero point and sensitivity of the scale.

4.2.3 Fill in the total carbon analysis results.

4.2.4 Observe the relevant operation and maintenance procedures of the equipment when using the equipment.

4.3 Ingredients

4.3.1 According to the technical requirements for carbon blending, or the material rework technical requirements notice.

4.3.2 The material is overweight. Check if the actual weight is the same as the weight on

the transfer card. Do not open the lid during hanging.

4.3.3 Determine the weighing of various raw materials and auxiliary materials: check the original original record (quality record), the technical notice of carbon blending requirements or the notice of technical requirements for material rework. According to the requirements of the carbon technology request notice or the material rework technical requirements notice, the amount of carbon and various raw materials and auxiliary materials are weighed, and the amount of supplement is appropriately increased according to the total carbon analysis results and climate change. At the same time, determine the loading number of each machine.

4.3.4 Weighing according to the final determined amount of carbon, the requirements are accurate. If there are special requirements, the process notice will prevail.

4.3.5 Loading.

4.4.1 Find the empty material bucket of the same kind of material, clean it up, and confirm that there is no residual material in the ball mill, then seal it at the discharge port of the ball mill. Open the outside of the ball mill, the inner cover, put the funnel, and prepare the loading.

4.4.2 After checking the batch number, use the crane to hoist the material to the ball mill, place it securely on the funnel, pull out the inserting board, and dip the material. The material must be cleaned and must not be spilled during loading. Then hang the empty bucket.

4.5 Mixing.

4.5.1 Sweep the material from the funnel into the ball mill, remove the funnel, cover the sealing cover, and close the outer cover.

4.5.2 Start mixing and write down the boot time.

4.5.3 Fill in the original record and material card.

4.6 Unloading.

4.6.1 After the mixing process time is reached, stop the machine and record the downtime.

4.6.2 Check if there is any leakage in the empty barrel of the ball mill, and reinstall the drum, then open the outer cover, seal cover, install the discharge cover, and cover the outer cover.

4.6.3 Start unloading.

4.6.4 After 4-8 minutes of unloading, press the unloading port to check whether it has been unloaded. If it has been unloaded, stop it first and hit it with a wooden hammer.

Hopper to remove material from the hopper. To change other grades, strictly clean the machine, do not mix, and adjust the amount of alloy balls in the ball mill according to the process requirements.

4.6.5 After the discharge is completed, clean and collect the spilled materials for centralized treatment.

4.7 Feeding.

The mixture is overweighted. The discharge weight and loading weight of each batch shall be substantially equal. When the discharge weight is small, it shall not be less than 5 kg of the loading weight. Fill the book and card with the weight and place the material card checkmark on the material surface.

- 4.7.1 Transfer the materials to the carbonization hall, arrange them neatly according to the fixed management regulations, and cover the feeding barrels.
- 4.7.2 Fill in the weight of the notebook and the card and place the material card checkmark on the material surface.
- 4.7.3 Transfer the materials to the carbonization hall, arrange them neatly according to the fixed management regulations, and cover the feeding buckets.
- 4.7.4 Transfer the empty bucket to the specified location.
- 4.8 In the process of mixing and feeding carbon, it is necessary to be careful and careful, and the wrong card must not be mistaken.
- 4.9 Cleaning machine requirements: The ball mill should be cleaned regularly or when the machine material grades and categories change. When cleaning, the alloy ball should be unloaded, and the inside and the lower part of the machine should be cleaned and the alloy ball removed. And all the alloy balls are required according to the grade requirements. Note that the new alloy balls are cleaned and dried with gasoline before use.
- 4.10 Class inspection.
- 4.10.1 The ball mill is operating normally.
- 4.10.2 Does the ball mill leak material?
- 4.11 On-site sanitation cleaning.
- 4.11.1 Place the buckets, scales, etc. in a neat and tidy manner according to the fixed management regulations. Cover the buckets, cover the outer cover of the ball mill, and wipe the table clean.
- 4.11.2 Carefully clean the floor, ball mill shell, and material tank cover, and pour the floor fabric into the residual barrel. The loading of the trolley and the bottom plate of the ball mill are collected and poured into the specified bucket.
- 4.11.3 Clean the floor.
- 4.12 Carefully complete the homework record and pack the original record book.
- 4.13 After the production is completed, stop the fan, turn off the light, close the door, close the window, and finish the operation.

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