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GB/T 6609.23-2004

Chemical Analysis Methods and Determination of Physical Performance of Alumina – Preparation and Storage of Test Samples

氧化铝化学分析方法和物理性能测定方法 试样的制备和贮存

(ISO 802:1976, MOD)

Issued on: February 5, 2004 **Implemented on: July 1, 2004**

Issued by: General Administration of Quality Supervision, Inspection and Quarantine;

Standardization Administration of the People's Republic of China.

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Foreword

GB/T 6609-2004 consists of 29 parts; this Standard is Part 23 of it.

This Standard modified and adopted ISO 802:1976 *Aluminum Oxide Primarily Used for the Production of Aluminum - Preparation and Storage of Test Samples*. The major technical differences between this Standard and ISO 802:1976 are as follows:

--- To be consistent with other parts of GB/T 6609, delete Foreword and Annex of ISO 802:1973, and add Foreword of this Standard;

--- Change the sample weight of the original specimen in 3.2 from 300g to 500g;

--- Change the test mesh in 3.3.1 and 3.3.2.1 from 0.2mm to 0.125mm according to the characteristics of China's alumina products;

--- To facilitate description, combine the first and the second paragraphs of 3.3.3 in ISO 802:1976 into 3.3.3.1 of this Standard; while combine the third to the fifth paragraphs into 3.3.3.2 of this Standard.

This Standard was proposed by China Nonferrous Metals Industry Association.

This Standard shall be under the jurisdiction of National Technical Committee on Nonferrous Metals of Standardization Administration of China.

This Standard was entrusted to Chalco Zhengzhou Research Institute and China Nonferrous Metals Industry Standards, Metrology and Quality Research Institute for drafting.

This Standard was drafted by Chalco Zhengzhou Research Institute.

Chief drafting staffs of this Standard: Meng Fuhai, Chen Jing, Lu Peiqian, and Chu Bingwu.

This Standard was entrusted to National Technical Committee on Nonferrous Metals of Standardization Administration of Chian for interpretation.

This Standard was first-time published hereby.

Chemical Analysis Methods and Determination of Physical Performance of Alumina – Preparation and Storage of Test Samples

1 Scope

This Standard specifies the preparation and storage methods of original and drying specimens of alumina primarily used in aluminum production.

2 Normative References

The provisions in following documents become the provisions of this Standard through reference in this Standard. For dated references, the subsequent amendments (excluding corrigendum) or revisions do not apply to this Standard, however, parties who reach an agreement based on this Standard are encouraged to study if the latest versions of these documents are applicable. For undated references, the latest edition of the referenced document applies.

GB/T 6609.22 Chemical analysis methods and determination of physical performance of alumina - Sampling

3 Preparation of Specimen

3.1 Laboratory sample

The laboratory sample shall be prepared according to the method specified in GB/T 6609.22.

3.2 Original specimen

The original specimen is primarily used for determining certain geometric properties, physical tests, physicochemical tests, and moisture determination.

Weigh approximately 500 g of laboratory sample and place it into a sealed container, ideally just enough to be filled with the sample.

3.3 Drying specimen

The drying specimen is used for composition analysis and determination of certain geometric

properties as well as physical and physicochemical tests.

3.3.1 Principle

The test materials were ground and sieved until all of them passed through a 0.125 mm test mesh.

The test materials were thoroughly mixed and dried at 300°C.

3.3.2 Equipment

Common laboratory equipment and:

3.3.2.1 Test sieve: 0.125 mm mesh. Made of materials that do not introduce impurities to be measured. Select the test sieve based on the properties of the alumina and the impurities to be measured.

3.3.2.2 Corundum mortar.

3.3.3 Procedure

3.3.3.1 Sieve 100g~200g of laboratory sample (3.1) through the test sieve (3.3.2.1). Grind the coarse material on the sieve using a corundum mortar (3.3.2.2), and sieve again. Thoroughly mix the sieving with the initial sieving. Repeat the grinding, sieving, and mixing process until all the specimens passes through the test sieve.

4. Container Labeling

Containers must be labeled with the following:

a) Product name;

b) Product source;

c) Specimen properties (original specimen or drying specimen);

d) Model of the used test sieve;

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