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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 7322-2017

Replacing GB/T 7322-2007

Refractory products -- Determination of refractoriness

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Table of Contents

Foreword

1 Scope

2 Normative references

3 principle

4 device

4.1 test furnace

4.2 camera system

Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This standard replaces GB/T 7322-2007 "refractories refractory test method", compared with GB/T 7322-2007, the main technical

The changes are as follows.

--- Removed terms and definitions;

--- Increased thermocouple and temperature measuring instruments, test sieve, optical pyrometer requirements;

--- Modify the size of the test cone, consistent with the GB/T 13794 standard temperature cone;

--- Remove the test cone method to cut the sample preparation;

--- Increased direct measurement method test steps.

This standard uses redrafted Law Amendment uses ISO 528.1983 "refractory products standard conical equivalent value (refractoriness) Determination." in

Appendix A is given in this standard reg number and ISO 528.1983 Chapter reg number control list. This standard is given in Appendix B

Technical differences with ISO 528.1983 and list of causes.

Please note that some of this document may be patentable. The issuing agencies of this document do not bear the responsibility of identifying these patents.

This standard by the National Refractory Standardization Technical Committee (SAC/TC193) and focal point.

This standard was drafted unit. Sinosteel Luoyang Institute of Refractories Co., Ltd.,
Luoyang Shi Rui generous heat-resistant test equipment Limited

Secretary, Anhui Ruitai New Material Technology Co., Ltd.

1 Scope

This standard specifies the refractories refractory test method of principle, equipment, sample preparation, the choice of standard temperature cone, the cone of equipment,

Test procedure and test report.

This standard applies to refractory materials and products refractory determination.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version applies to this article

Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 4513.2 amorphous refractory part 2. Sampling (GB/T 4513.2-2017, ISO 1927-2.2012, IDT)

GB/T 6003.1 Test sieves - Technical requirements and testing - Part 1. Wire mesh sieve test sieves (GB/T 6003.1-2012,

ISO 3310-1.2000, MOD)

GB/T 7321 shaped refractory products sample preparation method

GB/T 8170 rounded repair rules and limit values of the representation and judgment

GB/T 10325 Shaped refractory products sampling inspection rules (GB/T 10325-2012, ISO 5022.1979, NEQ)

GB/T 13794 standard temperature cone (GB/T 13794-2017, ISO 1146.1988, MOD)

GB/T 16839.1 Thermocouples Part 1. Index Table (GB/T 16839.1-1997, IEC 584-1.1995, IDT)

GB/T 16839.2 Thermocouples Part 2. Tolerance (GB/T 16839.2-1997, IEC 584-2.1982, IDT)

GB/T 17617 refractory raw materials and amorphous refractory samples (GB/T 17617-1998, neqISO 8656-1.1988)

3 principle

The refractory test cone and the known fire resistance standard temperature cone planted together in the frustum, under the conditions specified in the heating and comparison

Test cone and the standard temperature cone bending state or through the thermocouple test cone bending temperature when the test cone to reflect the refractoriness.

4.1 test furnace

Vertical tubular furnace or box furnace. The maximum cone temperature in the space occupied by the test should not exceed 10 degrees C (equivalent to

GB/T 13794 semi-standard cone), the uniformity of the furnace temperature thermocouple or standard thermometer regularly check. Can be in 1.5h ~ 2h

Within the furnace temperature rose to a lower than the estimated refractory resistance of the sample temperature of 200 degrees C, and then the average 2.5 degrees C/min uniform temperature, at any time with the provisions of

The temperature deviation curve should be less than 10 degrees C, until the end of the test. The furnace should maintain an oxidizing atmosphere.

NOTE Some furnaces, such as those burned with certain hydrocarbons and oxygen, contain high levels of water vapor and reducing gas in the atmosphere, using high performance

The refractory tube (plate) can be cone, the standard temperature cone, test cone and flame and gas.

4.2 camera system

Used to observe the refractory test process, including optical lenses, video cameras, image processing systems.