

ICS 71.100.10

CCS Q 52



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

GB/T 26310.5-2010

**Carbonaceous materials used in the production of aluminium --
Calcined coke -- Part 5: Determination of residual hydrogen
content**

原铝生产用煅后石油焦检测方法 第5部分：残留氢含量的测定

(English Translation)

Issued on: January 14, 2011

Implemented on: November 1, 2011

Issued by: Standardization Administration of China

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Foreword

GB/T 26310 "primary aluminum production of calcined petroleum coke detection method," a total of five sections.

- Part 1. Determination of density in xylene Pyknometer;
- Part 2. Determination of trace elements by flame atomic absorption spectrometry;
- Part 3. Determination of apparent oil heating;
- Part 4. Determination of oil content by solvent extraction;
- Part 5. Determination of the residual hydrogen content.

This is Part 5 GB/T 26310 of.

This part identical with ISO 10237:1997 "was measured by the production of aluminum Calcined petroleum coke residual hydrogen content." This section identical with ISO 10237:1997, in order to be consistent with our standard style, will remove its preamble, and the precision of the terms listed separately chapter.

This part is proposed by the China Nonferrous Metals Industry Association.

The non-ferrous metal part by the National Standardization Technical Committee.

This section is responsible for drafting unit. Cable-Development Co., Ltd., China Nonferrous Metals Industry Institute of Standards and Metrology and Quality.

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1 Scope

This section GB/T 26310 requirements for measuring the hydrogen content of the residual aluminum production of calcined petroleum coke in approach.

This section applies to the determination of primary aluminum production of calcined petroleum coke residual hydrogen content of. Measurement range. residual mass fraction of hydrogen $\leq 1.0\%$.

Note: the mass fraction of $\leq 1.0\%$, the hydrogen is mainly an aromatic ring, fewer side chains.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 26297.6 carbonaceous materials used in aluminum sampling methods - Part 6. calcined petroleum coke (GB/T 26297.6-2010, ISO 6375. 1980, IDT)

3 PRINCIPLE OF THE METHOD

The crushed and dried sample in an oxygen stream $750\text{ }^{\circ}\text{C}$ in complete combustion. Gas generated by the desiccant copper oxide and chromic acid lead. The gas is then absorbed by the desiccant produce water, wherein all the hydrogen from the sample. Determination of the drying agent to calculate the incremental test compound residues Leaving hydrogen content.

4 Solvent

4.1

copper oxide (CuO). filamentous.

4.2

lead chromate (PbCrO₄). particle size of 1mm ~ 3mm.

4.3

sulfuric acid (H₂SO₄). a concentration of 94% to 96% (mass fraction).

4.4

magnesium perchlorate [Mg (ClO₄)₂].

4.5

artificial graphite. no hydrogen particle size $\leq 1\text{mm}$, water content $\leq 0.001\%$ (mass fraction).

5 Instruments and devices

5.1

heating box. Can incubated at $220\text{ }^{\circ}\text{C} \pm 10\text{ }^{\circ}\text{C}$.

5.2

Balance. a sense of the amount of 0.1mg.

5.3

dryer. with desiccant.

5.4

wire screen. Aperture 1mm.

Combustion apparatus 5.5. 1, comprising the following components.