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

**GB/T 26310.1-2010**

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**Carbonaceous materials used in the production of aluminium --  
Calcined coke -- Part 1: Determination of the density in xylene --  
Pycnometer method**

原铝生产用煅后石油焦检测方法 第1部分：二甲苯中密度的测定 比重瓶法  
(English Translation)

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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 Pycnometer;
- 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 section GB/T Part of 126,310.

This part identical with ISO 8004. 1985 "carbonaceous materials used in the production of aluminum after calcined coke and calcined carbon products xylene density Pycnometer method. " This part identical with ISO 8004. 1985, in order to be consistent with our standard style, its preface and introduction Remove and precision provisions 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 units. Aluminum Corporation of China Zhengzhou Research Institute, China Nonferrous Metals Industry Quality Standards and Metrology Institute the study.

Participated in the drafting of this section. Shandong Chenyang Carbon Co., Ltd., Shandong Nanshan Aluminum Co., Ltd., a limited cable-Development the company.

## 1 Scope

This section GB/T 26310 specifies the method for determination of petroleum coke production of primary aluminum in xylene density Calcined.

This section applies to the production of primary aluminum in xylene density was measured using calcined petroleum coke.

## 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)

ISO 3507 pycnometer

Repeatability and reproducibility of measurement accuracy between laboratories ISO 5725 Test Method

## 3 PRINCIPLE OF THE METHOD

At 25 °C for petroleum coke density in xylene by vacuum degassing fumed measured in the pycnometer.

## 4 Reagents

During the assay, unless otherwise indicated, only the analytical reagent and distilled water (or boiled and purity rather 1h degassed water).

### 4.1

ethanol. 95% (volume fraction).

### 4.2

acetone.

### 4.3

Xylene ( $\rho \sim 0.860 \text{ g/mL}$ ). commercially pure.

Warning. Xylene can burn the skin, but may also be absorbed through the skin. Shall be operated in a fume hood to avoid inhalation of volatile Fat objects.

#### 4.4

sulfate ( $\rho \sim 1.84 \text{ g/mL}$ ). 96% (mass fraction) solution.

### 5 Device

#### 5.1

pycnometer. Volume 25mL (see ISO 3507).

#### 5.2

degasser. is shown in Figure 1, comprising the following components.

a) filled pycnometer (5.1) container. fully accommodate specific gravity bottle without a cork, and a vacuum pump connected to the outlet. It consists of a glass beaker, Removable lid and O-ring.