

ICS 73.060.10

CCS D 31



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

GB/T 6730.75-2017

**Iron ores -- Determination of sodium content -- Flame atomic
absorption spectrometric method**

Issued on: October 14, 2017

Implemented on: July 1, 2018

**Issued by: General Administration of Quality Supervision, Inspection and
Quarantine of the People's Republic of China, Standardization
Administration of the People's Republic of China**

Table of Contents

- Foreword
- 1 Scope
- 2 Normative references
- 3 principle
- 4 Reagents and materials

Foreword

GB/T 6730 "iron ore" is divided into dozens of sections.

This section GB/T 6730 Part 75.

This section drafted in accordance with GB/T 1.1-2009 given rules.

This Part replaces GB/T 6730.49-1986 "iron ore chemical analysis method of atomic absorption spectrophotometric determination of sodium and potassium"

Determination of sodium content part of this section compared with GB/T 6730.49-1986, in addition to editorial changes, the main technical changes are as follows.

- Remove the original standard on the determination of potassium content;
- Added "warning" "1 Scope" and "2 normative references";
- Determination of sodium content by the "0.005% ~ 1.50%" revised "0.0025% ~ 1.50%";
- Weighed amount "Weigh 0.5000g sample" was revised to "Weigh 0.2g ~ 0.5g pre-dried sample, accurate to 0.0002g";
- Modify the sodium content of the formula;
- "Allow to be poor" to "precision."

This section uses the redrafted law to amend the use of ISO 13313.2017 "Determination of iron ore sodium flame atomic absorption spectrometry," Ben

Partially compared with ISO 13313.2017, there are structural changes, including.

- Removed the "Terms and definitions" chapter;
- Adjust the "instrument" a chapter of the order of the order;
- Will dispense the test solution when the need to add the end of the liquid directly listed in the "Table 1 test solution dispensing".

This section compared with ISO 13312.2017, the main technical changes are as follows.

--- Determination of sodium content from the "0.0025% ~ 0.5%" revised "0.0025% ~ 1.50%" in order to expand the application of the method

range;

--- On the normative references, this section made a technical difference with the adjustment to adapt to China's technical conditions, adjust the situation

Concentration reflected in the second chapter "Normative references", the specific adjustments are as follows.

* Increased reference to GB/T 6379.1, GB/T 6379.2, GB/T 7728, GB/T 8170, GB/T 12807, GB/T 12808;

* Removed ISO 648, ISO 11323;

* GB/T 6682 modified to use international standards instead of ISO 3696;

* Equivalent to the international standard GB/T 6730.1 instead of ISO 7764;

* Equivalent to the use of international standards GB/T 6730.3 instead of ISO 2596;

* Equivalent to the international standard GB/T 10322.1 instead of ISO 3082;

* ISO 1042 is replaced by GB/T 12806, which is not equivalent to international standards.

--- Reagents and materials added a "mixed solvent" and ISO 13313.2017 "5.5 sodium standard solution" to modify this section

"4.6 sodium standard stock solution" and "4.7 sodium standard solution" for practical operation;

--- Remove the ISO 13313.2017 6.6 liquid bottles with dilute hydrochloric acid flushing requirements in line with China's actual situation;

--- Removed the analysis chapter chapter "Determination" of the general rules to meet the actual situation in our country;

--- Analysis step increased residue processing, so that the sample is more complete;

--- Modify the precision of representation, in line with China's actual situation;

--- Modify the analytical value of the acceptance C value formula to meet the actual situation in our country;

--- Modify the calculation of the final result, in line with the actual situation in our country;

--- Modify the test report in the "sample name and results" to meet the actual situation in our country.

This section also made the following editorial changes.

--- Modify the standard name;

--- Deleted 6.7 atomic absorption spectrophotometer ISO 13313.2017 Note and Appendix B Note 2;

--- Removed the international standard information appendix C.

This part is proposed by China Iron and Steel Association.

This part of the National Iron Ore and Direct Reduced Iron Standardization Technical Committee (SAC/TC317) centralized.

This part of the drafting unit. Hebei Exit Inspection and Quarantine Caofeidian Office.

1 Scope

GB/T 6730 provisions of this part of the flame atomic absorption spectrometry determination of iron content of sodium.

This section applies to iron ore, iron ore, sinter and pellet Determination of sodium content. Determination of the range (mass fraction) .0.0025% ~

1.50%.

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 6379.1 accuracy and accuracy of measurement methods (accuracy and precision) Part 1. General and definitions

GB/T 6379.2 accuracy of measurement methods and results (accuracy and precision) Part 2. Determination of standard measurement methods repeated

The basic method of sexuality and reproducibility

GB/T 6682 analytical laboratory water specifications and test methods (GB/T 6682-2008, ISO 3696.1987, MOD)

GB/T 6730.1 Preparation of pre-dried samples for iron ore analysis (GB/T 6730.1-2016, ISO 7764.2006, MOD)

GB/T 6730.3 Methods for chemical analysis of iron ores Gravimetric analysis Analysis of water absorption in the sample (GB/T 6730.3-1986,

ISO 2596.1984, IDT)

GB/T 7728 chemical analysis of chemical products - General rules of flame atomic absorption spectrometry

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

GB/T 10322.1 Iron ore sampling and sample preparation methods (GB/T 10322.1-2014, ISO 3082.2009, IDT)

GB/T 12806 laboratory glassware single standard line volumetric flask (GB/T 12806-2011, ISO 1042.1998, NEQ)

GB/T 12807 Laboratory glassware graduated pipette

GB/T 12808 laboratory glassware single standard pipette

3 principle

The sample is decomposed with hydrochloric acid and hydrofluoric acid and evaporated to near dryness. Hydrochloric acid again wetting residue, heating and evaporated to dryness. Dissolved residue with hydrochloric acid

Slag, dilute solution. In the atomic absorption spectrometer, the test solution is injected into the air - acetylene flame, measured at a wavelength of 589.0nm sodium absorbance degree. Calculate the mass fraction of sodium on the calibration curve.

4 Reagents and materials

Unless otherwise indicated in the analysis, only the use of approved analytical grade reagents and secondary water GB/T 6682 regulations or with its purity

Water.