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YS

**NONFERROUS METALS INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

YS/T 535.6-2009

Replacing YS/T 535.6-2006

**Chemical analysis methods of sodium fluoride. Part 6:
Determination of carbonate content. Gravimetric method**

氟化钠化学分析方法 第6部分：碳酸盐含量的测定重量法

(English Translation)

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Foreword

YS/T 535 "chemical analysis of sodium fluoride" is divided into 10 parts.

- Part 1. Determination of the weight of water in the wet method;
- Part 2. Determination of distillation of fluorine content - thorium nitrate titration volumetric method;
- Part 3. Determination of silicon content - Molybdenum blue spectrophotometric method;
- Part 4. Determination of iron content phenanthroline spectrophotometry;
- Part 5. Determination of soluble sulfate turbidity method;
- Part 6. Determination of carbonate content - Gravimetric method;
- Part 7. Determination of acidity and law;
- Part 8. Water-insoluble content - Gravimetric method;
- Part 9. Determination of chlorine turbidity method;
- Part 10. Preparation and storage of test samples.

Part is divided into 6 sections.

The partial replacement of YS/T 535.6-2006 (formerly GB/T 8158.6-1987).

This part is YS/T 535.6-1994 "Methods for chemical analysis of sodium carbonate Determination of the amount of weight," the amendment and YS/T 535.6-1994 increased compared to the like precision and quality assurance and control content.

Appendix A of this section is an informative annex.

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

This part of the Fushun Aluminum Co., Ltd., China Nonferrous Metals Industry Institute of Standards Metrology and Quality is responsible for drafting.

This part of the Fushun Aluminum Co. drafted.

1 Scope

This section provides the determination of sodium carbonate content.

This section applies to the determination of sodium carbonate content. Measurement range (mass fraction). 0.02% to 2.00%.

2 Normative references

The following documents contain provisions which, through reference in this text, constitute provisions of this part. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this section, however, encourage the parties to this part of the research agreement Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this section.

YS/T 535.10-2009 Methods for chemical analysis of sodium fluoride - Part 10. Sample preparation and storage

3 Method summary

Sample and hydrochloric acid, carbon dioxide is released so that the carbonate, with the air flow out, the asbestos-containing soda absorber absorption, suction weighing Incremental income tube to calculate the amount of carbon dioxide, thereby calculating the carbonate content.

4 Reagents

4.1

magnesium perchlorate. pellets or small pieces, this reagent should be no more than two molecules of water hydrate (equivalent to 13.9% water content). Its moisture Appendix A provides a method according to the determination.

4.2

soda asbestos. granular.

4.3

CuSO₄. mixed with dried pumice.

4.4

sulfuric acid solution ($\rho=1.84\text{g/mL}$).

4.5

hydrochloric acid solution (6mol/L).

5 Instruments

Apparatus shown in Fig.

5.1

flask A. volume of 250mL, grinding mouth.

5.2

connection. Connect tube B, one end close to the bottom of the flask A, and the other end connected to the absorption tube containing soda asbestos (4.2) of T7, and even Then a dropping funnel C.

5.3

condenser D.

5.4

Absorption tube. T1, T3, T6 be filled with magnesium perchlorate (4.1).

5.5

Absorption pipe. containing dried pumice mixed with anhydrous copper sulphate (4.3) within T2.

5.6

Absorption tube. T4, T6 to be filled three-quarters of soda asbestos (4.2) and quarter-magnesium perchlorate (4.1), you must use the glass fiber between them Victoria apart.

5.7

Safety bottle E.

5.8

bubble counter F. packages containing sulfuric acid solution (4.4).

5.9

suction device. with screw clamp G. By filtration, vacuum pump or a series of suction bottle can be.