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

GB/T 6730.85-2023

**Iron ores - Preparation and certification of certified reference
materials for use in chemical analysis**

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Table of Contents

Foreword

1994 (see C.2, C.3);

Introduction

1 Scope

2 Normative reference documents

3 Terms and definitions

Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1. Structure and Drafting Rules of Standardization Documents"

Drafting.

This document is Part 85 of GB/T 6730 "Iron Ore". The published parts of GB/T 6730 are shown in Appendix A.

This document is modified to adopt ISO 11459.1997 "Preparation and preparation of certified standard samples for chemical analysis of iron ore certified standard samples"

Value".

The technical differences and reasons between this document and ISO 11459.1997 are as follows.

a) Added normative references to GB/T 6379.1 and GB/T 27418 (see Chapter 3) to apply to my country's technical conditions;

b) Replaced ISO Guide30.1992 (see Chapter 3) with normatively quoted GB/T 15000.2 to conform to my country's actual conditions

Condition;

c) Replaced ISO 11323.1996 (see Chapter 3) with the normatively cited GB/T 20565 to comply with the actual situation in my country;

d) The term "best evaluation" in ISO 11459.1997 has been deleted, the definition of "candidate standard sample" has been added, and the "standard sample" has been changed.

"Product", "Certified standard sample", "Uniformity", "Uniformity between units", "Stability", "Validity period", "Sample", "Test sample", "Uniformity within the unit"

"Standard value", "uncertainty", "accuracy", "inter-laboratory test", "precision", "correctness", "bias", "reference method", "determination"

"value", "standard sample certificate", "standard sample development report" and "standard sample producer" (see Chapter 3), in order to comply with my country's

The actual situation;

e) ISO 4701 (see 4.3) was replaced with normatively cited GB/T 10322.7 to conform to the actual situation in my country;

f) "Preparation and processing" (see 5.1) has been changed to conform to the actual application in my country;

g) Added normative reference to GB/T 10322.1 (see 5.1) to comply with actual application in my country;

h) Added normative references to GB/T 15000.3 (see 5.1, 5.2.4, 5.3, 6.3.4.3, B.3) to comply with the actual situation in our country

application;

i) Added "stability assessment and monitoring" (see 5.3) to comply with practical applications in my country;

j) The "Analysis Method" (see 6.2) has been changed to conform to the actual application in my country;

k) "Selection of laboratories", "Number of laboratories p", "Determination of standard values and their uncertainty" and "Acceptance criteria of standard values" have been changed

(See 6.3), in order to comply with the actual application in our country;

l) The "Standard Sample Certificate Contents" (see Chapter 7) has been changed to conform to the actual application in my country;

m) Annex A of ISO 11459.1997 "Confirmation of homogeneity of candidate standard samples by results of inter-laboratory tests" has been changed to comply with

The practical application in my country (see Appendix B);

n) The ISO 11459.1997 Appendix B "Detailed Calculation of Variance Analysis" has been deleted to comply with the actual application in our country.

The following editorial changes have been made to this document.

a) In order to coordinate with the existing standards, the name of the standard is changed to "Preparation and Valuation of Certified Standard Samples for Chemical Analysis of Iron Ore";

b) Added "Note" in "Laboratory Selection" (see 6.3.3.1);

- c) Changed the "Note" in "Periodic Review of Standard Values" (see Chapter 8);
- d) Added Appendix A (informative) "Constituting Documents of GB/T 6730";
- e) Replaced ISO 5725-2:1994 with the informative GB/T 6379.2, and replaced ISO 5725-4 with GB/T 6379.4.

1994 (see C.2, C.3);

- f) Changed "Using Iron Ore Certified Standard Samples to Control the Accuracy in the Application of Standard Methods" in Appendix C (see C.3);
- g) Change ISO 11459:1997 Appendix D (Informative) to "Reference".

Please note that some content in this document may be subject to patents. The publisher of this document assumes no responsibility for identifying patents.

Introduction

Iron ore is the main raw material in the steel industry. Among the standard systems in the steel field, the standard system for determination of chemical composition of iron ore is one of the standard systems.

It is a very important part and plays an important role in ensuring the quality of iron ore products. This series of method standards serve the production of iron ore

production, trade and application, providing technical support for the high-quality development of my country's steel industry.

GB/T 6730 includes a series of standards for the determination of chemical composition of iron ore, which respectively stipulates the moisture, total iron, and metal content in iron ore products.

Iron, ferrous iron, silicon, aluminum, calcium, magnesium, sulfur, phosphorus, manganese, titanium, total rare earths, barium, chromium, vanadium, tin, copper, cobalt, nickel, zinc, niobium, bismuth, potassium, sodium, carbon, lead, arsenic,

Determination of chemical components such as cadmium, mercury, fluorine, chlorine, loss on ignition and combined water.

In 1986, GB/T 6730 released 51 national standards for the determination of chemical composition of iron ore for the first time. With iron ore field analysis

With the development of technology and actual production needs, a relatively complete standard system has been formed through continuous revision work over the years. Current

See Appendix A for details of the constituent documents of GB/T 6730.

Certified standard samples for chemical analysis of iron ore

Preparation and valuation

1 Scope

This document specifies the physical properties, preparation, determination, content of standard sample certificates, and standard values of iron ore certified standard samples for chemical analysis.

Periodic review, customer record requirements.

This document is applicable to the preparation and determination of certified standard samples of iron ore for chemical analysis.

2 Normative reference documents

The contents of the following documents constitute essential provisions of this document through normative references in the text. Among them, the dated quotations

For undated referenced documents, only the version corresponding to that date applies to this document; for undated referenced documents, the latest version (including all amendments) applies to

this document.

GB/T 6379.1 Accuracy of measurement methods and results (correctness and precision) Part 1.General principles and definitions (GB/T 6379.1-

2004,ISO 5725-1.1994,IDT)

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

GB/T 10322.7 Sieve determination of particle size distribution of iron ore and direct reduced iron (GB/T 10322.7-2016, ISO 4701.

2008,IDT)

GB/T 15000.2 Standard Sample Work Guide Part 2.Commonly used terms and definitions (GB/T 15000.2-2019, ISO Guide

30.2015,IDT)

GB/T 15000.3 Standard sample working guidelines (3) General principles and statistical methods for determining the value of standard samples (GB/T 15000.3-

2008,ISO Guide35.2006,IDT)

GB/T 20565 Iron ore and direct reduced iron terminology (GB/T 20565-2022, ISO 11323.2010, IDT)