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

GB/T 43569-2023

**Jewellery and precious metals - Sampling of precious metals
and precious metal alloys**

首饰和贵金属 贵金属及其合金的取样

(English Translation)

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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 has been modified to adopt ISO 11596:2021 "Jewellery and Precious Metals - Sampling of Precious Metals and Their Alloys":

Compared with ISO 11596:2021, this document has many adjustments in structure: A comparison list of structural number changes between the two documents See Appendix A:

The technical differences between this document and ISO 11596:2021 and their reasons are as follows:

---Added the applicable scope of jewelry after excluding all non-precious metals (see Chapter 1), making the scope more clear;

---Changed the terms and definitions of jewelry (see 3.2:2), keeping the terms and definitions consistent, and at the same time harmonizing with other standards;

---The definition of solder has been changed (see 3.2:4) to better reflect the characteristics of solder;

---Replaced ISO 3954 with normatively quoted GB/T 5314 to facilitate the implementation of the standard;

---Added dimensional requirements for high-speed steel twist drill bits (see 4.1);

---Added the sampling method of common jewelry (see 7.1:1) to specify the sampling method of common jewelry and increase operability;

---The sampling method for products composed of welding has been changed (see 7.1:6) to meet industry needs;

--- Added pre-treatment methods for high-purity precious metal jewelry (see 7.1:7) to avoid cross-contamination caused by tools during sampling;

---Increased the scope of application of melt sampling (see 7.2:1:1) to facilitate the

implementation of the standard;

--- Added a sampling method for the melting process (see 7.2:1:3) to facilitate the implementation of the standard;

---Added the calculation of melting coefficient (see 7.2:1:5), taking into account the possibility of loss of non-precious metals during the melting process, making the standard more Reasonable;

--- Added a sampling plan for melted ingots (see 7.2:3:2), adding another alternative plan to increase operability:

The following editorial changes have been made to this document:

---Added some content in informative Appendix B;

---Informative appendix C "Guidelines for Preprocessing of High-Purity Precious Metal Jewelry" has been added:

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

1 Scope

This document describes sampling methods for the determination of the precious metal content in jewelery containing precious metals and their alloys and for the evaluation of their homogeneity:

This document applies to raw materials, semi-finished products and finished products whose materials are all metal: Use appropriate methods to remove all non-metallic mountings this document also applies to jewelry, enamel jewelry, etc:

Note 1: For the measurement standards of precious metal content, please refer to the reference literature:

NOTE 2: For other analytical techniques not listed in the reference, other sampling procedures may be required:

Note 3: In product control or batch spot inspection, the international standards or corresponding guidance documents related to sampling in the reference literature can also be applied:

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 5314 Powder sampling method for powder metallurgy (GB/T 5314-2011, ISO 3954:2007, IDT)

3 Terms and definitions

The following terms and definitions apply to this document:

3.1

Sampling

3.1.1

sampling

The process of selecting a portion of a substance, material, or product as a representative sample for analysis:

3.1.2

Melt sampling dipsampling A method of taking initial samples from molten metal:

Note 1: In order to obtain analysis samples, secondary sampling is required:

Note 2: Depending on the specific sampling technique used, melt sampling is divided into tube sampling and bead (or button) sampling:

3.1.3

sample portion

A sample taken from a batch or piece of product through appropriate sample segmentation techniques in order to accurately represent the characteristics of the whole being tested:

3.1.4

sample

A representative amount of material selected from the sample (3:1:3):

Note: In references [11]~[18], "sample" is sometimes used instead of "sample":

3.1.5

Sampling position

The geometric location for sampling determined according to the sampling plan: