

ICS 77.150.99

CCS H68



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

GB/T 15159-2020

Replacing GB/T 15159-2008

Composite material strips of precious metals and their alloys

贵金属及其合金复合带材

Issued on: November 19, 2020

Implemented on: October 1, 2021

**Issued by: State Administration for Market Regulation;
Standardization Administration of China**

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009. This standard replaces GB/T 15159-2008 "Precious Metals and Alloy Composite Strips". Compared with GB/T 15159-2008, except for editing The main technical changes outside of the sexual modification are as follows:

---Modify "product classification", add surface convex compound and penetrating compound in compound method, and modify compound diagram (see 3.1.1, table 1,.2008

3.1.2 of the annual edition, Figure 2);

---Add noble metal IC-Ag99.99, Ag99.85Ni, Ag85Ni, AgCuP28-1, Ag95.5CuNiRE, Ag 92.5 CuZnNiRE, Ag97Cu, Ag85Cu, Ag72Cu, Ag65CuZn, Ag45CuZn, Ag90SnO2/Ag, Ag88SnO2/ Ag, Ag85SnO2/Ag, Ag90SnO2In2O3/Ag, Ag88SnO2In2O3/Ag, Ag85SnO2In2O3/Ag, Ag35PdCu, Ag49CuZnMnNi, Ag92.5CuNiCe, Ag92.5CuSnCe, IC-Au99.99, Au60Ag/Ag95.5CuNiRE, 30 pieces of Au10CuPdPtAgZn, AuNi5, AuNi9, AuPd20, Au/Ag, Ag40PdCuPt, Ag45Pd45Cu

10 Grades; increase the base layer materials 4J29, 4J42, 4J50, Fe, N6, BZn18-20, H90, a total of 7 grades (see

3.1.2 and Table 2,

3.2.2 and Table 10 of the.2008 edition);

---The supply status has been increased from three to five, with the addition of extra hard state and 1/4 hard state (see 3.2,

3.1.4 of the.2008 edition);

---Adjust the delivery status representation method and increase the hardness value requirements (see Table 3);

--- Modify the total thickness, total width and allowable deviation requirements of the product (see 4.2.2,

3.3.1.1 of the 2008 edition);

--- Modify the product layer thickness and allowable deviation value and expression method, because the layer thickness range is related to the total thickness of the strip, so the layer thickness tolerance is a certain proportional value of the thickness of the composite layer (see 4.2.3,

1 Scope

GB/T 15159-2020 is the Chinese national standard on composite material strips of precious metals and their alloys, in the field of metallurgy. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 19 November 2020 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 October 2021. Classification: ICS 77.150.99, CCS H68. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This standard specifies the classification and marking, technical requirements, test methods, inspection rules and markings of precious metals and their alloy composite strips. Contents of installation, transportation, storage, quality certificate and purchase order (or contract). This standard applies to precious metals and their alloys used in high and low voltage electrical appliances, military industry, aerospace, electronics, communications, home appliances, automobiles and other fields. Multilayer materials, composite strips with metals such as copper or copper alloys and expanded alloys as base materials.

2 Normative references

The following documents are indispensable for the application of this document. For dated reference documents, only the dated version applies to this article. For undated references, the latest version (including all amendments) applies to this document.

GB/T 4340 (all parts) Vickers hardness test of metallic materials

GB/T 5121 (all parts) Methods for chemical analysis of copper and copper alloys

GB/T 5231 Processed copper and copper alloy grades and chemical composition

GB/T 5235 Processed nickel and nickel alloy chemical composition and product shape

GB/T 8170 Numerical rounding rules and the expression and determination of limit values

GB/T 11066 (all parts) Gold chemical analysis method

GB/T 11067 (all parts) Silver chemical analysis method

GB/T 15072 (all parts) Chemical analysis methods for precious metal alloys

GB/T 15077 Method for measuring geometric dimensions of precious metals and their alloy materials YB/T 5231 fixed expansion sealing iron nickel cobalt alloy YB/T 5235 fixed expansion sealing iron-nickel-chromium, iron-nickel alloy

3.1 Product Classification

3.1.1 Compound form The composite interface is divided into comprehensive composite, mosaic composite, surface convex composite, and penetrating composite according to the combination form. The cross-sectional view is shown in Table 1.