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YS

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

YS/T 571-2009

Replacing YS/T 571-2006

Copper-beryllium alloy round wire

铍青铜圆形线材

(English Translation)

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Foreword

This revised standard adopts ASTM B197/197M-01 "beryllium copper alloy wire." this standard compared with ASTM B197/197M-01, except.

--- This standard specifies only the shape of a circular wire, ASTM B197/cross-sectional shape 197M-01 standard is circular, rectangular Shape, square, hexagonal and octagonal wire;

--- This standard is based on ASTM B197/197M-01 on the increase QBe2 and QBe1.9 grades;

--- Diameter tolerances specified in this standard is stricter than ASTM B197/197M-01 standards;

--- Mechanical properties of the standard requirements than ASTM B197/197M-01 standard is slightly lower.

Instead of the standard YS/T 571-2006 "Beryllium line" (formerly GB/T 3134-1982).

Compared with this standard YS/T 571-2006, the main changes are as follows.

--- Expanding the scope of the standard; the new increase QBe1.9, C17200 and C17300 grade; raised some size to allow deviation Accuracy; increase the weight limit of the reel; revised aging heat treatment process;

--- Increased supply state 1/4 hard (Y4), 3/4 hard (Y1), soft-aging (TF00), 1/4 hard Aging (TH01), 1/2 hard Aging (TH02), 3/4 hard Aging (TH03) and hard aging (TH04);

--- Mechanical properties section, the 1/4 hard (Y4), 3/4 hard (Y1) performance and improve the performance range of cold state; increased Tensile strength upper portion;

--- Test Method to the winding metal wire repeated bending test method.

Appendix A of this standard is the data appendix.

This standard by the National Standardization Technical Committee of non-ferrous metals

and centralized.

This standard by the Ningxia Orient Tantalum Industry Co., Ltd. is responsible for drafting.

1 Scope

This standard specifies the beryllium line requirements, test methods, inspection rules and signs, packaging, transportation, storage and purchase order (or contract), etc.

content.

This standard applies to the manufacture of precision springs beryllium copper round wire, instrumentation, and other components of the elastic element.

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

GB/T 228-2002 metallic materials at room temperature tensile test method GB/T 238 metal wire repeated bending test method for materials GB/T 351 metal material resistivity measurement method GB/T 5231 Wrought copper and copper alloy chemical composition and shape of the product GB/T 8888 heavy non-ferrous metal processing products packaging, labeling, transportation and storage YS/T 470.1 beryllium copper alloys - Inductively coupled plasma emission spectrometry beryllium, cobalt, nickel, titanium, iron, aluminum, Silicon, lead, magnesium content

3.1 Categories

3.1.1

product grades, status and specifications shall comply with the requirements of Table 1.

Table 1 Product grades, status and specifications

Grade	Status	diameter/mm	QBe2	QBe1.9	C17200	C17300
Soft state	or solution annealed condition (M), 1/4 hard state (Y4), semi-hard state (Y2), 3/4 Hard (Y1) Hard (Y)	Soft aging state (TF00) 1/4 hard - aged (TH01) 1/2 hard - aged (TH02) 3/4 hard - aged (TH03) Hard aging state (TH04)	0.5 ~ 6.00	0.03 ~ 6.00	0.5 ~ 6.00	0.1 ~ 6.00

Note 1: The state representation and description in Appendix A.

Note 2: 3/4 hard (Y1) and 3/4 hard state limitation (TH03) state products are generally only supply a diameter less than or equal to the wire 2.0mm.

3.1.2 Tag example

Products marked by order of the product name, grade, status, size and number of the standard representation. Tag example as follows.

Example 1. QBe2 made, hard state, beryllium copper wire having a diameter of 1.20mm marked.

Line QBe2Y 1.20 YS/T 571-2009

Example 2. C17300 manufactured, when the soft state, beryllium copper wire having a diameter of 1.60mm marked.

Line C17300TF00 1.60 YS/T 571-2009