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CCS N11



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

GB/T 17615-2015

Replacing GB/T 17615-1998

**Nickel-Chromium-Silicon/Nickel-Silicon-Magnesium
thermocouple wires**

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Standardization Administration of China**

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Foreword

This standard was drafted in accordance with GB/T 1.1-2009 given rules. This standard replaces GB/T 17615-1998 "Ni-Cr-Si - Ni-Si-Mg thermocouple wire." This standard and GB/T 17615-1998 compared to major differences are.

--- Modify products numerals method;

--- Thermal emf tolerance adopted by the IEC 584-2.1995, modified to reference to the provisions of ASTM E230-2012;

--- Modify 1300 °C thermal emf 47513μV;

--- Adjust the order of A and Appendix B of the Appendix. The standard proposed by China Machinery Industry Federation. The standard instrument functional materials by the National Standardization Technical Committee (SAC/TC419) centralized. This standard is drafted by: Institute of Materials Co., Ltd., Chongqing. Participated in the drafting of this standard. seventeen Chongqing Sichuan Instrument Co., Ltd., Jiangsu Huaxin Alloy Co., Ltd. Zhejiang Yueqing City, east China Factory, Chongqing City is the temperature Instrument Co., Ltd., Anhui Rand Group Co., Ltd., Chongqing Sichuan Instrument Automation Co., Ltd. metal functional material Material Branch, Changzhou Lucheng Albert Alloy Factory, Zhejiang Lunte Electrical Co., Ltd., Shandong Liquan Alloy Co., Ltd., Shenyang City in the color measurement Temperature Instrument Materials Research Institute Limited. The main drafters of this standard. Chen Lixin, Ho Ying Lun Wu Lei, Yuan Qin Hua, Zhou Hongqin, Wu Xinghua, Yin Shing House, Lee joint text, Wangbo Wei, Wu Galen, Tension group, Chen, Qi Baojun, Li Feng. This standard replaces the standards previously issued as follows:

--- GB/T 17615-1998. Ni-Cr-Si - Ni-Si-Mg thermocouple wire

1 Scope

GB/T 17615-2015 is the Chinese national standard on nickel-chromium-silicon/nickel-silicon-magnesium thermocouple wires, in the field of

metrology and measurement. 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 15 May 2015 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 1 December 2015. Classification: ICS 17.200.20, CCS N11. 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 Ni-Cr-Si - Ni-Si-Mg thermocouple wire product classification, technical requirements, test methods, inspection rules, modes of supply, packaging And signs. This standard applies to the manufacture of industrial silicon Ni-Cr - Ni-Si-Mg thermocouple (N-type thermocouple) alloy wire (hereinafter referred to as dual wire).

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 16701 precious metal, metal thermocouple wire thermal EMF measurement

GB/T 16839.1-1997 Thermocouples - Part 1. indexing table

JB/T 6819.2 meter material term temperature materials

3 Terms and Definitions

Terms and definitions JB/T 6819.2 defined apply to this document.

4 Products

4.1 Product name, code and nominal chemical composition Product name, code and the name of the chemical composition as shown in Table 1. Table

1 Product name, code and nominal chemical composition Product Name polarity code
Nominal chemical composition (mass fraction) /% Ni Cr Si Mg Ni-Cr-Si alloy wire cathode
NP more than 13.7 ~ 14.7 1.2 ~ 1.6 <

0.01 Ni-Si-Mg alloy wire than negative NN < 0.02 4.2 4.6 0.5 1.5

4.2 grade thermocouple wire Thermocouple wire according to the requirements of tolerance and pyroelectric properties, divided into grade I, II and III grade level classification conditions by the technical requirements.

4.3 dual wire recommended upper temperature limit Thermocouple wire of various diameters recommended upper temperature limit as shown in Table 2.

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