

ICS 77.120.99
CCS H 68

YS

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

YS/T 378-2009

Replacing YS/T 378-1994; YS/T 379-1994

Noble metal wires for industrial thermocouple

工业热电偶用贵金属丝材

(English Translation)

Issued on: December 4, 2009

Implemented on: June 1, 2010

Issued by: Ministry of Industry and Information Technology

Table of Contents

Foreword

1 Scope

2 Normative references

3 Requirements

3.1 Categories

Foreword

This standard is YS/T 378-1994 "industry with platinum and rhodium thermocouple 10 - platinum thermocouple wire", YS/T 379-1994 "industry platinum thermocouple Rhodium 30 - 6 platinum and rhodium thermocouple wire" integration amendment.

This standard YS/T 378-1994, YS/T 379-1994 compared to the main changes are as follows.

--- The two standards into a single standard, and increases the R-type thermocouple wire on this basis;

--- This standard is equivalent to IEC 584-1:1995 "Thermocouples Part 1. indexing table" and IEC 584-2:1995 "first thermocouple Part 2. Tolerances" in the S-type, R-type and B-type thermocouple indexing table, and tolerance level;

--- This standard uses terminology JB/T 6819.2 "material term instrument temperature materials";

--- Remove the indexing table contained in the original standard thermocouples, are listed in the main point temperature thermal emf in the appendix of this standard and tolerance, in order to facilitate dual wire test;

--- Increasing the relevant physical parameters of melting points, density, resistivity, etc;

--- Modify the purity of platinum wire (resistance ratio) values;

--- Improved test equipment and test methods, eliminating the fuse measurement of B-type thermocouple wire;

--- Modify the representation dual wire grades under the provisions of GB/T 18035 of.

From the date of implementation of this standard, but instead of YS/T 378-1994, YS/T 379-1994.

Appendix A of this standard is a normative appendix.

Appendix B of this standard is an informative annex.

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

This standard was drafted. Your research Platinum Ltd., China Nonferrous Metals Industry Standards and Metrology Institute for Quality.

Drafters of this standard. Wu Fei, Zhu Wuxun, He Dongjiang to Lei.

This standard replaces the standards previously issued as follows.

--- YB/T 1529-1979, YB/T 1530-1979;

--- YS/T 378-1994, YS/T 379-1994.

Industrial precious metal thermocouple wire

1 Scope

This standard specifies the use of precious metals industrial thermocouple wire product classification, technical requirements, test methods, inspection rules, modes of supply, standard Chi, packaging, transportation, storage and purchase order (or contract) content.

This standard applies to the manufacture of industrial precious metal thermocouple wire (hereinafter referred to as dual wire).

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 5978 resistance thermometers with platinum wire resistance than the test method
IEC 584-1:1995 Thermocouples Part 1. indexing table IEC 584-2:1995 Thermocouples Part 2. Tolerances

3.1 Categories

3.1.1

name even silk, grades, on behalf of the chemical composition, and the polarity of the code shown in Table 1.

Table 1

Name brand

Nominal chemical composition /% Pt Rh Code Polarity Platinum-rhodium alloy wire 10 Pt90Rh 90 10 SP positive Platinum wire Pt 100 - SN, RN negative 13 platinum-rhodium alloy wire Pt87Rh 87 13 RP positive 30 platinum-rhodium alloy wire Pt70Rh 70 30 BP positive 6 platinum and rhodium alloy wire Pt94Rh 94 6 BN negative

3.1.2 Grade thermocouple wire

Thermocouple wire according to requirements and thermoelectric properties were divided into grade I, grade II and III grade classification conditions by the technical requirements.

3.1.3 thermocouple wire recommended upper temperature limit as shown in Table 2.

Table 2

Model	long-term use temperature limit/°C	Short-term temperature limit/°C	S type
13,001,600 R type	13,001,600	Type B	16,001,700

3.1.4 Tag example

Products labeled in the following format.