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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 15014-2008

Replacing GB/T 15014-1994

Physical quantity terminologies and definitions of elastic alloy, expansion alloy, thermostat metal, resistance alloy

弹性合金、膨胀合金、热双金属、电阻合金物理量术语及定义

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Standardization Administration of China

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Foreword

This standard is GB/T 15014-1994 "characters and physical terms and definitions within the field of elastic alloys" GB/T 15015-1994 "characters and physical terms and definitions within the expanded field of alloy", GB/T 15016-1994 "hot bimetallic Characters and physical terms and definitions in the field "and GB/T 15017-1994" physical characteristics within the field of resistance alloys and physical Terms and Definitions "Integration of the four criteria revisions. This standard replaces GB/T 15014-1994 "characters and physical terms and definitions within the field of elastic alloys" GB/T 15015-1994 "characters and physical terms and definitions within the expanded field of alloy", GB/T 15016-1994 "hot bimetallic Characters and physical terms and definitions in the field "and GB/T 15017-1994" physical characteristics within the field of resistance alloys and physical Terms and definitions. " This standard and GB/T 15014-1994, GB/T 15015-1994, GB/T 15016-1994, GB/T 15017-1994, compared The main changes are as follows:

--- The standard name changed to "elastic alloy, expansion alloy, thermal bimetal, resistance alloy physical terms and definitions";

--- Added "category";

--- Added "Chinese index" and "English Index";

--- Elastic alloy to remove any "static hysteresis, viscosity, relaxation spectrum, elasticity ratio, stiffness constant, compliance constant" is defined and the "Poisson's ratio wide Pan-definition "; increase the" elastic alloys, high elasticity "is defined, the" plasticity "is defined on the mechanical properties are described;

--- Expansion alloy part of the increase of the "expansion alloys" is defined;

--- Heat the bimetal part of the definition of "hot bimetallic" be revised; increase the "thermal bimetal passive layer, the active layer of thermal bimetal, horizontal fight Bi-metal "is defined;

--- Resistance alloy part on the "conductivity" is defined requalified; increase the "resistance per meter" is defined;

--- Mechanical properties of the partial deletion of the "yield point" is defined; increase the "mechanical properties, the yield strength, yield strength at maximum force," the definition;

--- Definitions of various terms were re-confirmed, some of the terms on the modified text;

--- Physical units corresponding to the relevant national standards, international system of units now using consistent. The standard proposed by China Iron and Steel Association. This standard is under the jurisdiction of the National Steel Standardization Technical Committee. This standard was drafted. Shaanxi Co., Ltd., Metallurgical Industry Information Standards Institute precision alloy. The main drafters. Zhang turn, Eileen Chang, Liu gem. This standard replaces the standards previously issued as follows:

--- GB/T 15014-1994;

--- GB/T 15015-1994;

--- GB/T 15016-1994;

1 Scope

GB/T 15014-2008 is the Chinese national standard on physical quantity terminologies and definitions of elastic alloy, expansion alloy, thermostat metal, resistance alloy, 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 5 August 2008 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 April 2009. Classification: ICS 77.140.01, CCS H57. 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 applies to the elastic alloys, expansion alloys physical terms and definitions in the field, the heat resistance of metals and alloys dual use as a standard Registration and common appellation general use. Category

2 This standard functional materials using performance is divided into four categories. elastic alloys, expansion alloys, bi-metal and heat resistance alloy.

3 Terms and Definitions

3.1.1 Divided into high and constant elastic alloy elastic alloys.

3.1.2 The object to change its shape and size of the external force, the external force dismount and then restore the original shape and size characteristics. In the elastic range Internal stress and strain on simple single-valued function that obey Hooke's law.

3.1.3 Fully meet the elastic behavior of Hooke's law, the external force, while showing four characteristics.

a) momentary appears correspondence relationship between stress and strain;

b) between stress and strain is one to one;

c) when the stress is zero, the strain is zero;

d) between stress and strain is proportional relationship.

3.1.4 In the loading and unloading process, the strain response of different itinerary. Between stress and strain is neither correspondence nor proportionate, but Still has a third characteristic of an ideal spring.

3.1.5 Size of the object in addition to the non-elastic strain and stress of the size of the phenomenon, but also with time or the speed of deformation.

3.1.6 Flexible incomplete Resulting in non-linear relationship between stress and strain, the deformation is not perfectly elastic phenomenon. Anelastic manifestations include elastic aftereffect, bomb Of hysteresis, friction, stress relaxation, modulus, loss and the like. Anelastic strain epsilon body expression is.