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

GB/T 14989-2015

Replacing GB/T 14989-1994

Iron-cobalt-vanadium permanent-magnet alloys

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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 14989-1994 "Iron-cobalt-vanadium permanent-magnet alloys". As compared with GB/T 14989-1994, the main changes of this standard are as follows: - ADD the "normative references" (SEE Chapter 2); - ADD the "order content" (SEE Chapter 3); - EXTEND the diameter range of the cold drawn wire; MAKE appropriate adjustment of the allowable diameter deviations (SEE 4.1.1;

1.1.1 of 1994 version); - CHANGE the thickness deviation of the cold rolled strips from negative deviation to positive and negative deviations (SEE 4.1.2;

1.1.2 of 1994); - CHANGE the smelting method from "non-vacuum induction" to "vacuum induction" (SEE 5.2;

2.2 of 1994 version); - DELECT the "marking example" (SEE

1.3 of 1994 version); - UNIFY the magnetic performance indicators into the international unit system (SEE 5.4;

2.4 of 1994 version). This standard was proposed by China Iron and Steel Industry Association. This standard shall be under the jurisdiction of the National Steel Standardization Technical Committee (SAC/TC 183). The drafting organizations of this standard. Iron and Steel Research Institute, Metallurgical Industry Information Standards Institute. The main drafters of this standard. Yu Yipeng, Zhang Jinglin, Wu Bin, Lu Fengshuang, Zhang Jiansheng, Zhang Jianfu, Yan Chengming. This Standard replaces the standard previously issued as follows: - GBn 174-1982; - GB/T 14989-1994. GB/T 223.68

Methods for chemical analysis of iron, steel and alloy - The combustion potassium iodate volumetric method for the determination of sulfur content GB/T 223.69 Iron, steel, and alloy - Determination of carbon contents - Gas-volumetric method after combustion in the pipe furnace GB/T 11170 Stainless steel - Determination of multi-element contents - Spark discharge atomic emission spectrometric method (routine method) GB/T 13012 Methods of measurement of DC magnetic properties of magnetically soft materials GB/T 20066 Steel and iron - Sampling and preparation of samples for the determination of chemical composition GB/T 20123 Steel and iron - Determination of total carbon and sulfur content - Infrared absorption method after combustion in an induction furnace (routine method) YB/T 5242 General rules of packaging, marking, and quality certification for precision alloys

3 Order content

The contract or order ordered in accordance with this standard shall include the following information.

- a) This standard number;
- b) Alloy designation;
- d) Weight or quantity;
- e) Delivery status;
- f) Other special requirements made by the purchaser, which shall, after determined by the supplier and the purchaser through negotiation, be indicated in the contract. Inspection and acceptance of alloy materials are conducted by the quality inspection department of the supplier, AND the purchaser may also conduct inspection in accordance with the provisions of this standard.

7.2 Batching rules Alloy material shall be submitted for inspection and acceptance by batches, AND each batch shall be the alloy materials of the same alloy designation, the same melting furnace number, and the same specification.

7.3 Sampling location and sampling quantity The sampling location and the sampling quantity of the alloy shall comply with the requirements of Table 5.

7.4 Re-inspection and judgment rules

7.4.1 When the magnetic properties of the alloy are disqualified, it is allowed to re-take two samples for re-inspection. If the re-inspection result is still disqualified, the batch will not be accepted. However, the supplier may change the heat treatment system AND re-submit it as a new batch for inspection.

7.4.2 If the size, shape and surface quality is disqualified, the single coil will be judged as disqualified.

8 Packaging, marking and quality certificate

8.1 The packaging, marking and quality certificate of the alloy materials shall comply with the requirements of YB/T 5242.

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