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

SN/T 3112-2012

**Method of distinguishing grain orientation and non-orientation
of cold-rolled silicon steel sheets
(English Translation)**

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Foreword

This standard was drafted in accordance with GB/T 1.1-2009 given rules.

This standard is proposed and managed by the National Certification and Accreditation Administration Committee.

This standard was drafted. Tianjin People's Republic of China Exit Inspection and Quarantine.

1 Scope

This standard specifies the method of identifying a grain-oriented silicon steel cold rolling resistance.

This standard applies to a thickness no greater than 0.65mm cold-rolled non-oriented silicon steel and cold-rolled silicon steel sheet orientation discrimination.

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 3655 Method (band) magnetic properties with Epstein measuring electrical steel sheet
GB/T 13789 single sheet tester measurement of electrical steel sheet (strip) of magnetic energy

3 Terms and Definitions

The following terms and definitions apply to this document.

Iron loss specific total loss when the magnetic flux density over time by sine law change, its peak for a scaling value, a change in frequency when the calibration frequency in quality the amount of the core at temperature 20 °C power consumption as the total loss ratio, referred to as iron loss, in units of watts per kilogram (W/kg).

Grain-oriented grain orientation Preferred orientation silicon steel by deformation and annealing process recrystallized grains generated.

4 Principle of the method

The first method by measuring the thickness of cold-rolled silicon steel sheet, the preliminary determination of its orientation, and for the next magnetic measurement parameters to identify indicators Number, and then test the iron loss through horizontal and vertical ratio of iron loss to the final determination of grain-oriented silicon steel.

5.1 Sampling

In accordance with the appropriate sampling protocols to extract a representative sample of the whole consignment, the sample volume should be less prepared to meet the required test items. sample Good surface quality, there should be no scratches, rust, folding and other visible defects.

5.2 Sample preparation

Magnetic measurement sample was cut into 500mm x 500mm priority monolithic samples, to ensure compliance with the cutting direction and angle GB/T 13789 monolithic test sample requirements. If samples are not cut into 500mm x 500mm, then cut into 30mm x 300mm square sample ring, the vertical and horizontal of a group, to ensure compliance with its sample of GB/T 3655's.