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Test methods for electrical steel strip and sheet — Part 5: Methods of measurement of resistivity, density and stacking factor of electrical steel strip and sheet

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In the event of any doubts arising as to the contents,
the original JIS is to be the final authority.

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Foreword

This Japanese Industrial Standard has been revised by the Minister of Economy, Trade and Industry through deliberations at the Japanese Industrial Standards Committee as the result of proposal for revision of Japanese Industrial Standard submitted by The Japan Electrical Manufacturers' Association (JEMA)/Japanese Standards Association (JSA) with a draft being attached, based on the provision of Article 12, paragraph (1) of the Industrial Standardization Act applied mutatis mutandis pursuant to the provision of Article 16 of the said Act. This edition replaces the previous edition (**JIS C 2550-5**:2011), which has been technically revised.

Attention is drawn to the possibility that some parts of this Standard may conflict with patent rights, published patent application or utility model rights. The relevant Minister and the Japanese Industrial Standards Committee are not responsible for identifying any of such patent rights, published patent application or utility model rights.

JIS C 2550 series consists of the following 5 parts under the general title *Test methods for electrical steel strip and sheet* — :

Part 1 : *Methods of measurement of the magnetic properties of electrical steel strip and sheet by means of an Epstein frame*

Part 2 : *Methods of determination of the geometrical characteristics of electrical steel strip and sheet*

Part 3 : *Methods of measurement of the magnetic properties of electrical steel strip and sheet at medium frequencies*

Part 4 : *Methods of test for the determination of surface insulation resistance of electrical strip and sheet*

Part 5 : *Methods of measurement of resistivity, density and stacking factor of electrical steel strip and sheet*

Test methods for electrical steel strip and sheet — Part 5 : Methods of measurement of resistivity, density and stacking factor of electrical steel strip and sheet

Introduction

This Japanese Industrial Standard has been prepared based on **IEC 60404-13** : 2018, Edition 2, with some modifications of the technical contents to conform to the technologies commonly used in Japan.

The vertical lines on both sides and dotted underlines indicate changes from the corresponding International Standard. A list of modifications with the explanations is given in Annex JA.

1 Scope

This Standard specifies the methods used for determining the resistivity, density and stacking factor of electrical steel strip and sheet. These quantities are necessary to establish the physical characteristics of the material. Moreover, the density is necessary to allow specified values of the magnetic polarization, resistivity and stacking factor to be determined.

The measurements will be made at an ambient temperature of 23 °C ± 5 °C.

NOTE The International Standard corresponding to this Standard and the symbol of degree of correspondence are as follows.

IEC 60404-13 : 2018 *Magnetic materials — Part 13 : Methods of measurement of resistivity, density and stacking factor of electrical steel strip and sheet* (MOD)

In addition, symbols which denote the degree of correspondence in the contents between the relevant International Standards and **JIS** are IDT (identical), MOD (modified), and NEQ (not equivalent) according to **ISO/IEC Guide 21-1**.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this Standard. The most recent editions of the standards (including amendments) indicated below shall be applied.

JIS C 2550-1 *Test methods for electrical steel strip and sheet — Part 1 : Methods of measurement of the magnetic properties of electrical steel strip and sheet by means of an Epstein frame*

NOTE Corresponding International Standard : IEC 60404-2 *Magnetic materials — Part 2 : Methods of measurement of the magnetic properties of elec-*