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| ***भारतीय मानक******Indian Standard*** | **IS XXXX : 2024****(IEC 60404-8-8: 2017)** |

**चुंबकीय सामग्रियाँ — वैयक्तिक सामग्रियों के लिए विशिष्टि — मध्यम आवृत्तियों पर उपयोग के लिए पतली वैद्युत इस्पात पत्ती और चादर**

**Magnetic materials — Specifications for individual materials — Thin electrical steel strip and sheet for use at medium frequencies**

ICS 29.030

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भारतीय मानक ब्यूरो

BUREAU OF INDIAN STANDARDS

मानक भवन, 9 बहादुर शाह ज़फर मार्ग, नई दिल्ली - 110002

MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG

NEW DELHI - 110002

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**August 2024 Price Group X**

Wrought Steel Products Sectional Committee, MTD 04

NATIONAL FOREWORD

This Indian Standard which is identical to IEC 60404-8-8:2017 ‘Specifications for individual materials — Thin electrical steel strip and sheet for use at medium frequencies’ issued by the International Electrotechnical Commission (IEC), was adopted by the Bureau of Indian Standards on the recommendation of the Wrought Steel Products Sectional Committee and approval of the Metallurgical Engineering Division Council.

The advancements in electrical steels are primarily focused on enhancing efficiency in electromechanical applications for modern electrical devices and power systems. To be in harmony with the latest developments in the field, the committee felt a need to formulate a standard on non-grain oriented electrical steel strip and sheet supplied in the finally annealed condition in coils or sheets and intended for the construction of magnetic circuits predominantly used at frequencies in the range from 100 Hz to 10 kHz.

The text of IEC standard has been approved as suitable for publication as an Indian Standard without deviations. Certain conventions and terminologies are however not identical to those used in Indian Standards. Attention is particularly drawn to the following:

1. Wherever the words ‘International Standard’ appear referring to this standard, they should be read as ‘Indian Standard’.
2. Comma (,) has been used as a decimal marker while in Indian Standards, the current practice is to use a point (.) as the decimal marker.

In this adopted standard, reference appears to certain International Standards for which Indian Standards also exists. The corresponding Indian Standards which are to be substituted in their place are listed below along with their degree of equivalence for the edition indicated:

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| *International Standard* | *Corresponding Indian Standard* | *Degree of Equivalence* |
| ISO 404 : 2013 Steel and steel products — General technical delivery requirements | IS 8910 : 2022/ ISO 404 : 2013 Steel and steel Products — General technical delivery requirements (*second revision*) | Identical |
| ISO 10474 : 2013 Steel and steel products — Inspection documents | IS/ISO 10474 : 2013 Steel and steel products inspection documents (*first revision*) | Identical |
| ISO 7799 : 1985 Metallic materials — Sheet and strip 3 mm thick or less — Reverse bend test | IS 1403 (Part 1) : 1993 / ISO 7799 : 1985 Metallic materials — Sheet and strip 3 mm thick or less — Reverse bend test (*second revision*) | Identical |

The Technical Committee responsible for the preparation of this standard has reviewed the provisions of following International Standards referred in this adopted standard and has decided their acceptability for use in conjunction with this standard.

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| *International Standard* | *Title* |
| IEC 60050-121  | International Electrotechnical Vocabulary (IEV) - Part 121: Electromagnetism |
| IEC 60050-221  | International Electrotechnical Vocabulary (IEV) - Part 221: Magnetic materials and components |
| IEC 60404-2  | Magnetic materials - Part 2: Methods of measurement of the magnetic properties of electrical steel strip and sheet by means of an Epstein frame |
| IEC 60404-9  | Magnetic materials - Part 9: Methods of determination of the geometrical characteristics of electrical steel strip and sheet |
| IEC 60404-10 | Magnetic materials: Part 10 Methods of measurement of magnetic properties of magnetic steel sheet and strip at medium frequencies |
| IEC 60404-13  | Magnetic materials: Part 13 Methods of measurement of resistivity, density and stacking factor of electrical steel strip and sheet |

The standard also makes a reference to the BIS Certification Marking of the product. Details of which are given in National Annex D.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 2022 ‘Rules for rounding off numerical values (*second revision*)’. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

**National Annex D**

(*National Foreword*)

**D-1 BIS CERTIFICATION MARKING**

The product(s) conforming to the requirements of this standard may be certified as per conformity assessment schemes under the provisions of the Bureau of Indian Standards Act, 2016 and the Rules and Regulations framed thereunder, and the products may be marked with the standard mark.