

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Magnetic materials –

Part 8-3: Specifications for individual materials – Cold-rolled non-oriented electrical steel strip and sheet delivered in the semi-processed state

Matériaux magnétiques –

Partie 8-3: Spécifications pour matériaux particuliers – Bandes et tôles magnétiques en acier à grains non orientés, laminées à froid et livrées à l'état semi fini



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CONTENTS

FOREWORD.....	4
INTRODUCTION.....	6
1 Scope.....	7
2 Normative references	7
3 Terms and definitions	7
4 Classification.....	8
5 Designation	8
6 General requirements	9
6.1 Production process	9
6.2 Form of supply	9
6.3 Delivery condition	9
6.4 Surface condition	10
6.5 Suitability for cutting	10
7 Technical requirements	10
7.1 Magnetic properties	10
7.1.1 Reference condition.....	10
7.1.2 Magnetic polarization.....	10
7.1.3 Specific total loss	12
7.1.4 Anisotropy of loss	13
7.2 Geometrical characteristics and tolerances	13
7.2.1 Thickness	13
7.2.2 Width.....	14
7.2.3 Length	14
7.2.4 Edge wave (wave factor)	14
7.2.5 Edge camber	15
7.3 Technological characteristics	15
7.3.1 Density	15
7.3.2 Stacking factor.....	15
8 Inspection and testing.....	15
8.1 General.....	15
8.2 Selection of samples.....	16
8.3 Preparation of test specimens.....	16
8.3.1 Magnetic properties	16
8.3.2 Geometrical characteristics and tolerances.....	16
8.3.3 Stacking factor.....	16
8.4 Test methods	17
8.4.1 General	17
8.4.2 Magnetic properties	17
8.4.3 Geometrical characteristics and tolerances.....	17
8.4.4 Stacking factor.....	17
8.5 Retests	17
9 Marking, labelling and packaging.....	17
10 Complaints	18
11 Information to be supplied by the purchaser	18
Annex A (informative) Typical relative amplitude permeability	19

Annex B (informative) Maximum specific total loss at 1,0 T	20
Annex C (informative) Calculated density of non-oriented electrical steel.....	21
Bibliography.....	22
Table 1 – Technological and magnetic properties for use at 50 Hz (magnetic properties are measured using the Epstein method according to IEC 60404-2).....	11
Table 2 – Technological and magnetic properties for use at 60 Hz (magnetic properties are measured using the Epstein method according to IEC 60404-2).....	12
Table 3 – Tolerances on nominal thickness.....	13
Table 4 – Tolerances on nominal width	14
Table A.1 – Typical relative amplitude permeability values.....	19
Table B.1 – Maximum specific total loss at 1,0 T.....	20

INTERNATIONAL ELECTROTECHNICAL COMMISSION

MAGNETIC MATERIALS –

**Part 8-3: Specifications for individual materials –
Cold-rolled non-oriented electrical steel strip and sheet
delivered in the semi-processed state**

FOREWORD

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IEC 60404-8-3 has been prepared by IEC technical committee 68: Magnetic alloys and steels. It is an International Standard.

This fourth edition cancels and replaces the third edition published in 2005. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) Modification of terms and technical requirements concerning geometrical characteristics to be consistent with IEC 60404-9:2018;
- b) Insertion of Table 3 – Tolerances on nominal thickness;

- c) Change of the length of the test specimen for determination of geometrical characteristics from 2 m to 1 m;
- d) Deletion of Annex A with the European numerical system of designation of steels.

The text of this International Standard is based on the following documents:

Draft	Report on voting
68/736/CDV	68/747/RVC

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

A list of all parts in the IEC 60404 series, published under the general title *Magnetic materials*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
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- revised.

INTRODUCTION

TC 68 followed the recommendation of the maintenance inquiry, 68/649/INF, to revise this standard in order to maintain consistency with other standard adaptations of the IEC 60404 series. Moreover, the revision is made mainly regarding testing and definitions of geometrical characteristics in accordance with IEC 60404-9. The length of the test specimen for determination of geometrical characteristics is changed from 2 m to 1 m. The term of "flatness" is divided into "edge wave (wave factor)" and "residual curvature". This revision also includes corrections in order to improve consistency with other IEC 60404-8 series. For example, the supply in the form of coils is considered before the supply in sheets, which reflects the current priority.

As the final annealing of cold-rolled non-oriented electrical steel strip and sheet delivered in the semi-processed state is the responsibility of the user, attention is drawn to the importance of this treatment for the properties of the product.

For this reason the magnetic properties in Table 1 and Table 2 are given for a reference condition (see 7.1.1) obtained by a suitable heat treatment. To ensure that the properties in use are equivalent to those specified, it is important that the heat treatment carried out by the user is equivalent to that used to define the reference condition.

It is recognised that these products can be used in the semi-processed state, in which case the magnetic properties are not subject to the specifications of this document.