SLOVENSKI STANDARD
SIST EN 60424-4:2016

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Feritna jedra - Smernice o mejnih vrednostih površinskih nepravilnosti - 4. del: Obročkasta jedra

Ferrite cores - Guidelines on the limits of surface irregularities - Part 4: Ring-cores

Noyaux ferrites - Lignes directrices relatives aux limites des irrégularités de surface - Partie 2: Noyaux toriques

Ta slovenski standard je istoveten z: EN 60424-4:2016

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29.100.10 Magnetne komponente Magnetic components

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 60424-4

March 2016

ICS 29.100.10 Supersedes EN 60424-4:2001

English Version

Ferrite cores - Guidelines on the limits of surface irregularities - Part 4: Ring-cores (IEC 60424-4:2015)

Noyaux ferrites - Lignes directrices relatives aux limites des irrégularités de surface - Partie 4: Noyaux toriques (IEC 60424-4:2015)

Ferritkerne - Leitfaden für Grenzwerte von sichtbaren Beschädigungen der Kernoberfläche - Teil 4: Ringkerne (IEC 60424-4:2015)

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Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

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European foreword

The text of document 51/1109/FDIS, future edition 2 of IEC 60424-4, prepared by IEC/TC 51 "Magnetic components and ferrite materials" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60424-4:2016.

The following dates are fixed:

• latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2016-10-08
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2019-01-08

This document supersedes EN 60424-4:2001.

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Endorsement notice

The text of the International Standard IEC 60424-4:2015 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60424-1	NOTE	Harmonized as EN 60424-1.

IEC 60424-4

Edition 2.0 2015-12

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Ferrite cores – Guidelines on the limits of surface irregularities – Part 4: Ring-cores

Noyaux ferrites – Lignes directrices relatives aux limites des irrégularités de surface – Partie 4: Noyaux toriques

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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FOREWORD

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International Standard IEC 60424-4 has been prepared IEC technical committee 51: Magnetic components and ferrite materials.

This second edition cancels and replaces the first edition published in 2001. This edition constitutes a technical revision.

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

a) addition of crystallites in 3.1.3 and of pores in 3.1.4.

The text of this standard is based on the following documents:

FDIS	Report on voting
51/1109/FDIS	51/1124/RVD

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

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts in the IEC 60424 series, published under the general title *Ferrite cores – Guidelines on the limits of surface irregularities*, can be found on the IEC website.

Future standards in this series will carry the new general title as cited above. Titles of existing standards in this series will be updated at the time of the next edition.

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

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

FERRITE CORES – GUIDELINES ON THE LIMITS OF SURFACE IRREGULARITIES –

Part 4: Ring-cores

1 Scope

This part of IEC 60424 gives guidance on allowable limits of surface irregularities applicable to ring-cores in accordance with the relevant generic specification defined in IEC 60424-1.

This standard is considered as a sectional specification useful in the negotiations between ferrite core manufacturers and customers about surface irregularities.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

Void.

3 Limits of surface irregularities

3.1 Uncoated ring-cores

3.1.1 General

Generally, uncoated ring-cores are smoothed (for example: by tumbling) to remove any significant flash and to add radius to edges that would otherwise be sharp due to tooling angles. Tooling angles exist where the compaction punches meet the interior of the die mold, where a sharp angle in the edge of the piece that is formed is unavoidable. This is also the location inside the ferrite tool set where flashing may occur. The purpose of removing flash and rounding edges is to allow uncoated ring cores to be wound with insulated wire, using typical production winding processes, without damage to the wire.

3.1.2 Chips and ragged edges

Figure 1 shows examples of chips and ragged edges location on ring-cores.

– Ragged edges as defined in IEC 60424-1 are allowed.
– Chips shall not exceed 25 % of the wall thickness either in length or in width, up to a maximum of 2 mm.
– The maximum number of chips shall not exceed 3 on one core edge and a total of 5 on all edges.