SLOVENSKI STANDARD
SIST EN 60424-1:2016

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Feritna jedra - Smernice o mejnih vrednostih površinskih nepravilnosti - 1. del: Splošna specifikacija

Ferrite cores - Guidelines on the limits of surface irregularities - Part 1: General Specification

Ta slovenski standard je istoveten z: EN 60424-1:2016

ICS:

29.100.10 Magnetne komponente Magnetic components

SIST EN 60424-1:2016 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 60424-1

March 2016

ICS 29.100.10

Supersedes EN 60424-1:1999

English Version

Ferrite cores - Guidelines on the limits of surface irregularities - Part 1: General specification (IEC 60424-1:2015)

Noyaux ferrites - Lignes directrices relatives aux limites des irrégularités de surface - Partie 1: Spécification générale (IEC 60424-1:2015)

Ferritkerne - Leitfaden für Grenzwerte von sichtbaren Beschädigungen der Kernoberfläche - Teil 1: Fachgrundspezifikation (IEC 60424-1:2015)

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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

European foreword

The text of document 51/1107/FDIS, future edition 2 of IEC 60424-1, prepared by IEC/TC 51 "Magnetic components and ferrite materials" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60424-1:2016.

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• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2019-01-08

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Endorsement notice

The text of the International Standard IEC 60424-1:2015 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 60401-3	NOTE	Harmonized as EN 60401-3.
IEC 60424-2	NOTE	Harmonized as EN 60424-2.
IEC 60424-3	NOTE	Harmonized as EN 60424-3.
IEC 60424-4	NOTE	Harmonized as EN 60424-4.
IEC 60424-8	NOTE	Harmonized as EN 60424-8.

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INTERNATIONAL STANDARD

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Ferrite cores – Guidelines on the limits of surface irregularities – Part 1: General specification

Noyaux ferrites – Lignes directrices relatives aux limites des irrégularités de surface – Partie 1: Spécification générale

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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FERRITE CORES – GUIDELINES ON THE LIMITS OF SURFACE IRREGULARITIES –

Part 1: General specification

FOREWORD

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International Standard IEC 60424-1 has been prepared IEC technical committee 51: Magnetic components and ferrite materials.

This second edition cancels and replaces the first edition published in 1999. This edition constitutes a technical revision.

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

a) addition of pores in 3.5 and crystallites in 3.6.

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

FDIS	Report on voting
51/1107/FDIS	51/1123/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.

INTRODUCTION

Due to the method of manufacture and the physical nature of the products, ferrite cores can be expected to exhibit some degree of physical irregularities such as chips, ragged edges, cracks, flashing, and pull-out.

The permissible extent of these surface irregularities will depend on the type, position and size of the defect and on the function of the core. Thus, in order to establish limits of surface irregularities for a given series of ferrite cores, for example RM-cores, pot-cores, E-cores, U-cores and ring-cores, it is necessary to prepare a particular specification for each, setting out in detail the permissible extent of the various types of irregularities.

All surfaces of the core should be clean and free from loose ferrite particles or any other foreign matter. This is more critical for mating surfaces that should make good contact with one another. Stains, discolorations, surface crazing or crystallization are acceptable if they do not affect the normal performance of the core. The irregularities described below are considered as being detectable without the use of any magnifying equipment.

Surface irregularities limits are set for control of cosmetic appearance, and not for control of magnetic performance. Surface irregularities do not substantially affect core magnetic function, nor do they affect reliability. Reliability should be assessed for wound magnetics, rather than for cores alone. See IEC 60401-3 for more details concerning the reliability of ferrite cores and devices built with them.