ICS 25.220.20 SLOVENSKÁ TECHNICKÁ NORMA Február 2018

STN	**Nevodivé povlaky na nemagnetických elektricky vodivých podkladových kovoch Meranie hrúbky povlaku Metóda merania amplitúdy vírivých prúdov (ISO 2360: 2017)**	**STN EN ISO 2360** 03 8185

Non-conductive coatings on non-magnetic electrically conductive base metals - Measurement of coating thickness - Amplitude-sensitive eddy-current method (ISO 2360:2017)

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 01/18

Obsahuje: EN ISO 2360:2017, ISO 2360:2017

Oznámením tejto normy sa ruší
STN EN ISO 2360 (03 8185) z augusta 2004

Úrad pre normalizáciu, metrológiu a skúšobníctvo Slovenskej republiky, 2018
Podľa zákona č. 264/1999 Z. z. o technických požiadavkách na výrobky a o posudzovaní zhody a o zmene a doplnení niektorých zákonov v znení neskorších predpisov sa slovenská technická norma a časti slovenskej technickej normy môžu rozmnožovať alebo rozširovať len so súhlasom slovenského národného normalizačného orgánu.

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 2360

August 2017

ICS 25.220.20

Supersedes EN ISO 2360:2003

English Version

Non-conductive coatings on non-magnetic electrically conductive base metals - Measurement of coating thickness - Amplitude-sensitive eddy-current method (ISO 2360:2017)

Revêtements non conducteurs sur matériaux de base non magnétiques conducteurs de l'électricité - Mesurage de l'épaisseur de revêtement - Méthode par courants de Foucault sensible aux variations d'amplitude (ISO 2360:2017)

Nichtleitende Überzüge auf nichtmagnetischen metallischen Grundwerkstoffen - Messen der Schichtdicke - Wirbelstromverfahren (ISO 2360:2017)

This European Standard was approved by CEN on 8 July 2017.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. 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 CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.

EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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

© 2017 CEN All rights of exploitation in any form and by any means reserved worldwide for CEN national Members.

Ref. No. EN ISO 2360:2017 E

Contents

Page

European foreword

This document (EN ISO 2360:2017) has been prepared by Technical Committee ISO/TC 107 “Metallic and other inorganic coatings” in collaboration with Technical Committee CEN/TC 262 “Metallic and other inorganic coatings, including for corrosion protection and corrosion testing of metals and alloys” the secretariat of which is held by BSI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by February 2018, and conflicting national standards shall be withdrawn at the latest by February 2018.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN ISO 2360:2003.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 2360:2017 has been approved by CEN as EN ISO 2360:2017 without any modification.

STN EN ISO 2360: 2018

INTERNATIONAL STANDARD

ISO 2360

Fourth edition
2017-07

Non-conductive coatings on non-magnetic electrically conductive base metals — Measurement of coating thickness — Amplitude-sensitive eddy-current method

Revêtements non conducteurs sur matériaux de base non magnétiques conducteurs de l'électricité — Mesurage de l'épaisseur de revêtement — Méthode par courants de Foucault sensible aux variations d'amplitude

Reference number
ISO 2360:2017(E)

© ISO 2017
Úrad pre normalizáciu, metrológiu a skúšobníctvo Slovenskej republiky

COPYRIGHT PROTECTED DOCUMENT

© ISO 2017, Published in Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

© ISO 2017 – All rights reserved
Úrad pre normalizáciu, metrológiu a skúšobníctvo Slovenskej republiky

Contents

Page

© ISO 2017 – All rights reserved

Úrad pre normalizáciu, metrológiu a skúšobníctvo Slovenskej republiky

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 107, *Metallic and other inorganic coatings*.

This fourth edition cancels and replaces the third edition (ISO 2360:2003), which has been technically revised.

© ISO 2017 – All rights reserved
Úrad pre normalizáciu, metrológiu a skúšobníctvo Slovenskej republiky

INTERNATIONAL STANDARD **ISO 2360:2017(E)**

Non-conductive coatings on non-magnetic electrically conductive base metals — Measurement of coating thickness — Amplitude-sensitive eddy-current method

1 Scope

This document specifies a method for non-destructive measurements of the thickness of non-conductive coatings on non-magnetic electrically conductive base metals, using amplitude-sensitive eddy-current instruments.

In this document, the term "coating" is used for materials such as, for example, paints and varnishes, electroplated coatings, enamel coatings, plastic coatings, claddings and powder coatings. This method is particularly applicable to measurements of the thickness of most oxide coatings produced by anodizing, but is not applicable to all conversion coatings, some of which are too thin to be measured by this method (see Clause 6).

This method can also be used to measure non-magnetic metallic coatings on non-conductive base materials. However, the phase-sensitive eddy-current method specified in ISO 21968 is particularly usable to this application and can provide thickness results with a higher accuracy (see Annex A).

This method is not applicable to measure non-magnetic metallic coatings on conductive base metals. The phase-sensitive eddy-current method specified in ISO 21968 is particularly useful for this application. However, in the special case of very thin coatings with a very small conductivity, the amplitude-sensitive eddy-current method can also be used for this application (see Annex A).

Although the method can be used for measurements of the thickness of coatings on magnetic base metals, its use for this application is not recommended. In such cases, the magnetic method specified in ISO 2178 can be used. Only in case of very thick coatings above approximately 1 mm, the amplitude-sensitive eddy-current method can also be used for this application (see Annex A).

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 2064, *Metallic and other inorganic coatings — Definitions and conventions concerning the measurement of thickness*

ISO 4618, *Paints and varnishes — Terms and definitions*

ISO/IEC Guide 98-3, *Uncertainty of measurement — Part 3: Guide to the expression of uncertainty in measurement (GUM:1995)*

koniec náhľadu – text ďalej pokračuje v platenej verzii STN

© ISO 2017 – All rights reserved

Úrad pre normalizáciu, metrológiu a skúšobníctvo Slovenskej republiky