



# SLOVENSKI STANDARD

## SIST EN ISO 2360:2004

01-junij-2004

Nadomešča:  
SIST EN ISO 2360:1999

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### Neprevodne prevleke na nemagnetnih električno prevodnih osnovnih materialih - Merjenje debeline prevleke - Metoda vrtničnih tokov (ISO 2360:2003)

Non-conductive coatings on non-magnetic electrically conductive basis materials -  
Measurement of coating thickness - Amplitude-sensitive eddy current method (ISO  
2360:2003)

iTeh STANDARD PREVIEW

Nichtleitende Überzüge auf nichtmagnetischen metallischen Grundwerkstoffen - Messen  
der Schichtdicke - Wirbelstromverfahren (ISO 2360:2003)

SIST EN ISO 2360:2004

Revetements 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 2360:2003)

**Ta slovenski standard je istoveten z: EN ISO 2360:2003**

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#### **ICS:**

17.040.20	Lastnosti površin	Properties of surfaces
25.220.20	Površinska obdelava	Surface treatment

**SIST EN ISO 2360:2004** en

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN ISO 2360**

November 2003

ICS 25.220.20

Supersedes EN ISO 2360:1995

English version

**Non-conductive coatings on non-magnetic electrically  
conductive basis materials - Measurement of coating thickness -  
Amplitude-sensitive eddy current method (ISO 2360:2003)**

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  
2360:2003)

Nichtleitende Überzüge auf nichtmagnetischen  
metallischen Grundwerkstoffen - Messen der Schichtdicke  
- Wirbelstromverfahren (ISO 2360:2003)

This European Standard was approved by CEN on 27 October 2003.

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 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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and United Kingdom.



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

**Management Centre: rue de Stassart, 36 B-1050 Brussels**

EN ISO 2360:2003 (E)

<b>CORRECTED 2003-12-17</b>
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## Foreword

This document (EN ISO 2360:2003) 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", 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 May 2004, and conflicting national standards shall be withdrawn at the latest by May 2004.

This document supersedes EN ISO 2360:1995.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and the United Kingdom.

## iTeh STANDARD PREVIEW Endorsement notice (standards.iteh.ai)

The text of ISO 2360:2003 has been approved by CEN as EN ISO 2360:2003 without any modifications.

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# INTERNATIONAL STANDARD

**ISO  
2360**

Third edition  
2003-11-15

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## **Non-conductive coatings on non-magnetic electrically conductive basis materials — Measurement of coating thickness — Amplitude-sensitive eddy current method**

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*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*

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## ISO 2360:2003(E)

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## Contents

Page

Foreword.....	iv
1 Scope.....	1
2 Principle .....	1
3 Apparatus.....	1
4 Sampling .....	1
5 Factors affecting measurement uncertainty .....	2
5.1 Coating thickness .....	2
5.2 Electrical properties of the basis materials.....	2
5.3 Basis metal thickness.....	2
5.4 Edge effects .....	2
5.5 Surface curvature.....	2
5.6 Surface roughness.....	3
5.7 Lift-off effect .....	3
5.8 Probe pressure .....	3
5.9 Probe tilt.....	3
5.10 Temperature effects.....	3
5.11 Intermediate coatings.....	3
6 Procedure.....	4
6.1 Calibration of instruments .....	4
6.2 Determination .....	5
7 Expression of results.....	5
8 Measurement uncertainty.....	6
9 Test report.....	6
Annex A (informative) Eddy current generation in a metallic conductor .....	7
Annex B (normative) Test for edge effect .....	10
Bibliography .....	11

**ISO 2360:2003(E)****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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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.

ISO 2360 was prepared by Technical Committee ISO/TC 107, *Metallic and other inorganic coatings*, Subcommittee SC 2, *Test methods*.

This third edition cancels and replaces the second edition (ISO 2360:1982), which has been technically revised.

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# Non-conductive coatings on non-magnetic electrically conductive basis materials — Measurement of coating thickness — Amplitude-sensitive eddy current method

## 1 Scope

This International Standard describes a method for non-destructive measurements of the thickness of non-conductive coatings on non-magnetic, electrically conductive (generally metallic) basis materials, using amplitude-sensitive eddy current instruments.

NOTE This method can also be used to measure non-magnetic metallic coatings on non-conductive basis materials.

The 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).

Although theoretically, the method can be used for measurements of the thickness of coatings on magnetic basis materials, its use for this application is not recommended. In such cases, the magnetic method specified in ISO 2178 should be used.

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## 2 Principle

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An eddy current probe (or integrated probe/instrument) is placed on the surface of the coating(s) to be measured, and the thickness is read from the instrument's readout.

## 3 Apparatus

**3.1 Probe**, containing an eddy current generator and detector linked to a system capable of measuring and displaying the changes in amplitude, normally as a direct readout of coating thickness. The system may also be able to measure phase changes.

NOTE 1 The probe and measuring system/display may be integrated into a single instrument.

NOTE 2 Factors affecting measurement accuracy are discussed in Clause 5.

## 4 Sampling

Sampling depends on the specific application and coating to be tested. The area, location and number of test specimens shall be agreed between interested parties and shall be included in the test report (see Clause 9).