

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

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

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN ISO 2360:2004 sisaldab Euroopa standardi EN ISO 2360:2003 ingliskeelset teksti. Käesolev dokument on jõustatud 20.02.2004 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN ISO 2360:2004 consists of the English text of the European standard EN ISO 2360:2003. This document is endorsed on 20.02.2004 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.
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Käsitlusala: This International Standard describes a method for non-destructive measurements of the thickness of non-conductive coatings on non-magnetic, electrically conductive basis materials, using amplitude-sensitive eddy current instruments.	Scope: This International Standard describes a method for non-destructive measurements of the thickness of non-conductive coatings on non-magnetic, electrically conductive basis materials, using amplitude-sensitive eddy current instruments.
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ICS 25.220.20

Võtmesõnad:

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 – Mesu-
rage de l'épaisseur de revêtement –
Méthode par courants de Foucault
sensible aux variations d'amplitude
(ISO 2360 : 2003)

Nichtleitende Überzüge auf nicht-
magnetischen metallischen Grund-
werkstoffen – Messen der Schicht-
dicke – Wirbelstromverfahren
(ISO 2360 : 2003)

This European Standard was approved by CEN on 2003-10-27.

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.

The European Standards exist 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, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, the Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland, and the United Kingdom.

CEN

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

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

Foreword

International Standard

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

which was prepared by ISO/TC 107 'Metallic and other inorganic coatings' of the International Organization for Standardization, has been adopted by Technical Committee CEN/TC 262 'Metallic and other inorganic coatings', the Secretariat of which is held by BSI, as a European Standard.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, and conflicting national standards withdrawn, by May 2004 at the latest.

In accordance with the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard:

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

Endorsement notice

The text of the International Standard ISO 2360 : 2003 was approved by CEN as a European Standard without any modification.

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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.

2 Principle

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).