

Metall- ja oksiidkatted. Katte paksuse mõõtmine. Mikroskoobimeetod

Metallic and oxide coatings - Measurement of
coating thickness - Microscopical method

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN ISO 1463:2004 sisaldab Euroopa standardi EN ISO 1463:2004 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 23.09.2004 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN ISO 1463:2004 consists of the English text of the European standard EN ISO 1463:2004.</p> <p>This document is endorsed on 23.09.2004 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p>Käsitlusala:</p> <p>This International Standard describes a method for the measurement of the local thickness of metallic coatings, oxide layers, and porcelain or vitreous enamel coatings, by the microscopical examination of cross-sections using an optical microscope.</p>	<p>Scope:</p> <p>This International Standard describes a method for the measurement of the local thickness of metallic coatings, oxide layers, and porcelain or vitreous enamel coatings, by the microscopical examination of cross-sections using an optical microscope.</p>
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Võtmesõnad: klaasemailid, metallkatted, metallograafia, mikroskoopiline analüüs, mõõtmete määramine, oksiidkatted, paksus, portselanemailid

English version

**Metallic and oxide coatings - Measurement of coating thickness
- Microscopical method (ISO 1463:2003)**

Revêtements métalliques et couches d'oxyde - Mesurage
de l'épaisseur de revêtement - Méthode par coupe
micrographique (ISO 1463:2003)

Metall- und Oxidschichten - Schichtdickenmessung -
Mikroskopische Verfahren (ISO 1463:2003)

This European Standard was approved by CEN on 1 April 2004.

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Foreword

The text of ISO 1463:2003 has been prepared by Technical Committee ISO/TC 107 "Metallic and other inorganic coatings" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 1463:2004 by 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 November 2004, and conflicting national standards shall be withdrawn at the latest by November 2004.

This document supersedes EN ISO 1463:1994.

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

Endorsement notice

The text of ISO 1463:2003 has been approved by CEN as EN ISO 1463:2004 without any modifications.

NOTE Normative references to International Standards are listed in Annex ZA (normative).

Annex ZA
(normative)**Normative references to international publications
with their relevant European publications**

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

NOTE Where an International Publication has been modified by common modifications, indicated by (mod.), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN</u>	<u>Year</u>
ISO 2064	1996	Metallic and other inorganic coatings - Definitions and conventions concerning the measurement of thickness	EN ISO 2064	2000

**Metallic and oxide coatings —
Measurement of coating thickness —
Microscopical method**

*Revêtements métalliques et couches d'oxyde — Mesurage de
l'épaisseur de revêtement — Méthode par coupe micrographique*



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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 1463 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 1463:1982), which has been technically revised.

Metallic and oxide coatings — Measurement of coating thickness — Microscopical method

1 Scope

This International Standard describes a method for the measurement of the local thickness of metallic coatings, oxide layers, and porcelain or vitreous enamel coatings, by the microscopical examination of cross-sections using an optical microscope.

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2 Normative references

The following referenced documents are indispensable for the application 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*

3 Term and definition

For the purposes of this document the following term and definition apply.

3.1

local thickness

the mean of the thickness measurements, of which a specified number is made within a reference area

[3.4 of ISO 2064:1996]

4 Principle

A portion of the test specimen is cut out and mounted. The mounted cross-section is prepared by suitable techniques of grinding, polishing and etching. The thickness of the coating cross-section is measured by means of a calibrated scale.

NOTE These techniques will be familiar to experienced metallographers, but some guidance is given in Clause 5 and in Annex A for less experienced operators.