

SLOVENSKI STANDARD
SIST EN ISO 15186-1:2004**01-januar-2004**

Akustika - Merjenje zvočne izolirnosti v zgradbah in zvočne izolirnosti gradbenih elementov z uporabo zvočne intenzitete - 1 .del: Laboratorijska merjenja (ISO 15186-1:2000)

Acoustics - Measurement of sound insulation in buildings and of building elements using sound intensity - Part 1: Laboratory measurements (ISO 15186-1:2000)

Akustik - Bestimmung der Schalldämmung in Gebäuden und von Bauteilen aus Schallintensitätsmessungen - Teil 1: Messungen im Prüfstand (ISO 15186-1:2000)

Acoustique - Mesurage par intensité de l'isolation acoustique des immeubles et des éléments de construction - Partie 1: Mesurages en laboratoire (ISO 15186-1:2000)

Ta slovenski standard je istoveten z: EN ISO 15186-1:2003**ICS:**

17.140.01	Akustična merjenja in blaženje hrupa na splošno	Acoustic measurements and noise abatement in general
91.120.20	Akustika v stavbah. Zvočna izolacija	Acoustics in building. Sound insulation

SIST EN ISO 15186-1:2004**en**

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN ISO 15186-1

July 2003

ICS 91.120.20

English version

**Acoustics - Measurement of sound insulation in buildings and of
building elements using sound intensity - Part 1: Laboratory
measurements (ISO 15186-1:2000)**

Acoustique - Mesurage par intensité de l'isolation
acoustique des immeubles et des éléments de construction
- Partie 1: Mesurages en laboratoire (ISO 15186-1:2000)

Akustik - Bestimmung der Schalldämmung in Gebäuden
und von Bauteilen aus Schallintensitätsmessungen - Teil 1:
Messungen im Prüfstand (ISO 15186-1:2000)

This European Standard was approved by CEN on 2 July 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.

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

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

EN ISO 15186-1:2003 (E)**Foreword**

The text of ISO 15186-1:2000 has been prepared by Technical Committee ISO/TC 43 "Acoustics" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 15186-1:2003 by Technical Committee CEN/TC 126 "Acoustic properties of building products and of buildings", the secretariat of which is held by AFNOR.

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 January 2004, and conflicting national standards shall be withdrawn at the latest by January 2004.

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.

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The text of ISO 15186-1:2000 has been approved by CEN as EN ISO 15186-1:2003 without any modifications.

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

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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 140-1	1997	Acoustics - Measurement of sound insulation in buildings and of building elements - Part 1: Requirements for laboratory test facilities with suppressed flanking transmission	EN ISO 140-1	1997
ISO 140-3	1995	Acoustics - Measurement of sound insulation in buildings and of building elements - Part 3: Laboratory measurements of airborne sound insulation of building elements	EN ISO 140-3	1995
ISO 140-10	1991	Acoustics - Measurement of sound insulation in buildings and of building elements - Part 10: Laboratory measurement of airborne sound insulation of small building elements	EN 20140-10	1992
ISO 9614-1	1993	Acoustics - Determination of sound power levels of noise sources using sound intensity - Part 1: Measurements at discrete points	EN ISO 9614-1	1995

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INTERNATIONAL
STANDARD

ISO
15186-1

First edition
2000-03-01

**Acoustics — Measurement of sound
insulation in buildings and of building
elements using sound intensity —**

**Part 1:
Laboratory measurements**

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*Acoustique — Mesurage par intensité de l'isolation acoustique des
immeubles et des éléments de construction —*

Partie 1: Mesurages en laboratoire

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Reference number
ISO 15186-1:2000(E)

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Printed in Switzerland

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ISO 15186-1:2000(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 3.

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 part of ISO 15186 may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

International Standard ISO 15186-1 was prepared by Technical Committee ISO/TC 43, *Acoustics*, Subcommittee SC 2, *Building acoustics*.

ISO 15186 consists of the following parts, under the general title *Acoustics — Measurement of sound insulation in buildings and of building elements using sound intensity*:

— *Part 1: Laboratory measurements*

— *Part 2: Field measurements*

— *Part 3: Laboratory measurements at low frequencies*

Annexes A and B of this part of ISO 15186 are for information only.

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Acoustics — Measurement of sound insulation in buildings and of building elements using sound intensity —

Part 1: Laboratory measurements

1 Scope

This part of ISO 15186 specifies a sound intensity method to determine the sound reduction index and the element-normalized level difference of building elements. The method can be used as an alternative to ISO 140-3 and ISO 140-10 respectively. One important use is when the traditional ISO 140-3 method fails because of high flanking transmission.

The reproducibility of this intensity method is estimated to be equal to or better than that of ISO 140-3.

NOTE Some information about the accuracy with which this part of ISO 15186 can reproduce the sound reduction index measured according to ISO 140-3 is given in annex A.

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2 Normative references

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The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of ISO 15186. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of ISO 15186 are encouraged to investigate the possibility of applying the most recent edition of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 140-1, *Acoustics — Measurement of sound insulation in buildings and of building elements — Part 1: Requirements for laboratory test facilities with suppressed flanking transmission.*

ISO 140-3, *Acoustics — Measurement of sound insulation in buildings and of building elements — Part 3: Laboratory measurements of airborne sound insulation of building elements.*

ISO 140-10, *Acoustics — Measurement of sound insulation in buildings and of building elements — Part 10: Laboratory measurement of airborne sound insulation of small building elements.*

ISO 9614-1:1993, *Acoustics — Determination of sound power levels of noise sources using sound intensity — Measurement at discrete points.*

IEC 60942, *Sound calibrators.*

IEC 61043, *Electroacoustics — Instruments for the measurement of sound intensity — Measurement with pairs of pressure sensing microphones.*

3 Terms and definitions

For the purposes of this part of ISO 15186, the following terms and definitions apply.