

Acoustics - Measurement of sound insulation in buildings and of building elements - Part 14: Guidelines for special situations in the field

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

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| <p>Käesolev Eesti standard EVS-EN ISO 140-14:2004 sisaldab Euroopa standardi EN ISO 140-14:2004 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 26.10.2004 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 140-14:2004 consists of the English text of the European standard EN ISO 140-14:2004.</p> <p>This document is endorsed on 26.10.2004 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 part of ISO 140 concerns field measurements of airborne sound insulation and impact sound insulation, and is to be used as a supplement to ISO 140-4 and ISO 140-7. It contains guidelines on sound insulation measurements in special situations in the field not directly covered by ISO 140-4 and ISO 140-7.</p> | <p>Scope:</p> <p>This part of ISO 140 concerns field measurements of airborne sound insulation and impact sound insulation, and is to be used as a supplement to ISO 140-4 and ISO 140-7. It contains guidelines on sound insulation measurements in special situations in the field not directly covered by ISO 140-4 and ISO 140-7.</p> |
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English version

Acoustics - Measurement of sound insulation in buildings and of building elements - Part 14: Guidelines for special situations in the field (ISO 140-14:2004)

Acoustique - Mesurage de l'isolation acoustique des immeubles et des éléments de construction - Partie 14: Lignes directrices pour des situations particulières in situ (ISO 140-14:2004)

Akustik - Messung der Schalldämmung in Gebäuden und von Bauteilen - Teil 14: Leitfäden für besondere bauliche Bedingungen (ISO 140-14:2004)

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Foreword

This document (EN ISO 140-14:2004) has been prepared by Technical Committee ISO/TC 43 "Acoustics" in collaboration with 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 February 2005, and conflicting national standards shall be withdrawn at the latest by February 2005.

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 140-14:2004 has been approved by CEN as EN ISO 140-14:2004 without any modifications.

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

**Part 14:
Guidelines for special situations in the
field**

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

Partie 14: Lignes directrices pour des situations particulières in situ



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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 140-14 was prepared by Technical Committee ISO/TC 43, *Acoustics*, Subcommittee SC 2, *Building acoustics*.

ISO 140 consists of the following parts, under the general title *Acoustics — Measurement of sound insulation in buildings and of building elements*:

- *Part 1: Requirements for laboratory test facilities with suppressed flanking transmission*
- *Part 2: Determination, verification and application of precision data*
- *Part 3: Laboratory measurements of airborne sound insulation of building elements*
- *Part 4: Field measurements of airborne sound insulation between rooms*
- *Part 5: Field measurements of airborne sound insulation of façade elements and façades*
- *Part 6: Laboratory measurements of impact sound insulation of floors*
- *Part 7: Field measurements of impact sound insulation of floors*
- *Part 8: Laboratory measurements of the reduction of transmitted impact noise by floor coverings on a heavyweight standard floor*
- *Part 9: Laboratory measurements of room-to-room airborne sound insulation of a suspended ceiling with a plenum above it*
- *Part 10: Laboratory measurement of airborne sound insulation of small building elements*
- *Part 11: Laboratory measurements of the reduction of transmitted impact sound by floor coverings on lightweight reference floors*
- *Part 12: Laboratory measurement of room-to-room airborne and impact sound insulation of an access floor*
- *Part 13: Guidelines (Technical Report)*
- *Part 14: Guidelines for special situations in the field*

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

Part 14: Guidelines for special situations in the field

1 Scope

This part of ISO 140 concerns field measurements of airborne sound insulation and impact sound insulation, and is to be used as a supplement to ISO 140-4 and ISO 140-7. It contains guidelines on sound insulation measurements in special situations in the field not directly covered by ISO 140-4 and ISO 140-7.

NOTE The basic standards ISO 140-4 and ISO 140-7 specify the measurement procedure in detail under ideal conditions, but give only little information on how to establish a suitable measurement set-up in rooms differing from simple box-shaped rooms of normal living room size. When it comes to very large rooms, long and narrow rooms, staircases, coupled rooms, etc., no guidance is given in the basic standards, which is why the guidelines in this part of ISO 140 have been prepared. Use of the guidelines will contribute to improvement in the reproducibility of building acoustics field measurements and, furthermore, facilitate the performance of measurements by avoiding time-consuming considerations in actual measurement situations.

This part of ISO 140 is primarily applicable to measurements in rooms in dwellings, schools, hotels, etc., with volumes less than 250 m³.

It is not mandatory to use these guidelines in connection with measurements according to ISO 140-4 and ISO 140-7 unless this is stated elsewhere.

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 140-4:1998, *Acoustics — Measurement of sound insulation in buildings and of building elements — Part 4: Field measurements of airborne sound insulation between rooms*

ISO 140-7:1998, *Acoustics — Measurement of sound insulation in buildings and of building elements — Part 7: Field measurements of impact sound insulation of floors*

3 Technical background

The guidelines in this part of ISO 140 are based on the results presented in ISO/TR 140-13. The guidelines consist of extracts from this Technical Report.

The guidelines have been prepared based on some theoretical considerations, a few experimental investigations, and on practical experience from performing a great number of field measurements.