

**Akustika. Heliisolatsiooni mõõtmine hoonetes ja
hooneosadel. Osa 1: Nõuded summutatud
kaudset müra ülekandvatele
laborikatseseadmetele**

Acoustics - Measurement of sound insulation in
buildings and of building elements - Part 1:
Requirements for laboratory test facilities with
suppressed flanking transmission

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN ISO 140-1:1999 sisaldab Euroopa standardi EN ISO 140-1:1997 ingliskeelset teksti.

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This standard is ratified with the order of Estonian Centre for Standardisation dated 23.11.1999 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

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Descriptors: See ISO document

English version

Acoustics - Measurement of sound insulation in buildings and of
building elements - Part 1: Requirements for laboratory test
facilities with suppressed flanking transmission (ISO 140-
1:1997)

Acoustique - Mesurage de l'isolement acoustique des
immeubles et des éléments de construction - Partie 1:
Spécifications relatives aux laboratoires sans transmissions
latérales (ISO 140-1:1997)

This European Standard was approved by CEN on 2 October 1997.

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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 Central Secretariat has the same status as the official versions.

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COMITÉ EUROPÉEN DE NORMALISATION
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Foreword

The text of the International Standard ISO 140-1:1997 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of an identical text or by endorsement, at the latest by April 1998, and conflicting national standards shall be withdrawn at the latest by April 1998.

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, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

Endorsement notice

The text of the International Standard ISO 140-1:1997 was approved by CEN as a European Standard without any modification.

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insulation in buildings and of building
elements —**

Part 1:

Requirements for laboratory test facilities with
suppressed flanking transmission

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

*Partie 1: Spécifications relatives aux laboratoires sans transmissions
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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.

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.

International Standard ISO 140-1 was prepared by Technical Committee ISO/TC 43, *Acoustics*, Subcommittee SC 2, *Building acoustics*.

This third edition cancels and replaces the second edition (ISO 140-1:1990), which has been technically revised.

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 of 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 facade elements and facades*
- *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 measurement 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 12: Laboratory measurement of room-to-room airborne and impact sound insulation of an access floor*

Annexes A and B form an integral part of this part of ISO 140. Annex C is for information only.

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

Part 1:

Requirements for laboratory test facilities with suppressed flanking transmission

1 Scope

This part of ISO 140 lays down specifications concerning laboratory test facilities for sound insulation measurements of building elements. It applies to laboratory test facilities with suppressed radiation from flanking elements; and/ or structural isolation between source and receiving rooms.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 140. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 140 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

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.*

ISO 140-8:1997, *Acoustics — Measurement of sound insulation in buildings and of building elements — Part 8: Laboratory measurements of the reduction of transmitted impact noise by floor coverings on a heavyweight standard floor.*

3 Laboratory test facilities for airborne sound insulation measurements under diffuse field conditions

The laboratory test facility consists of two adjacent reverberant rooms with a test opening between them in which the test specimen is inserted.

3.1 Rooms

Volumes and corresponding dimensions of the two test rooms should not be exactly the same. A difference in room volumes and/or in the linear dimensions of at least 10 % is recommended. The volumes of the test rooms shall be at least 50 m³.

Choose the ratios of the room dimensions such that the modal frequencies in the low-frequency bands are spaced as uniformly as possible.