Akustika. Heliisolatsiooni mõõtmine hoonetes ja hooneosadel. Osa 3: Hooneosade õhuheli isolatsiooni laborimõõtmised

Acoustics - Measurement of sound insulation in buildings and of building elements - Part 3: Laboratory measurements of airborne sound insulation of building elements



#### **EESTI STANDARDI EESSÕNA**

#### **NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN ISO 140-3:1999 sisaldab Euroopa standardi EN ISO 140-3:1995 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 23.11.1999 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS

Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on .

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN ISO 140-3:1999 consists of the English text of the European standard EN ISO 140-3:1995.

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.

Date of Availability of the European standard text.

The standard is available from Estonian standardisation organisation.

ICS 91.120.20

Teatajas.

**Võtmesõnad:** akustika, akustilised katsed, akustilised mõõtmised, heliisolatsioon, hooned, katsed, katsetingimused, konstruktsioonielemendid, laborikatsed, õhuheli

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Kui Teil on küsimusi standardite autorikaitse kohta, palun võtke ühendust Eesti Standardikeskusega: Aru 10 Tallinn 10317 Eesti; <a href="www.evs.ee">www.evs.ee</a>; Telefon: 605 5050; E-post: <a href="mailto:info@evs.ee">info@evs.ee</a>

### EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

EN ISO 140-3 January 1995

+ **A1**August 2004

ICS 91.120.20

Supersedes EN ISO 140-3:1995.

#### **English version**

#### Acoustics

# Measurement of sound insulation in buildings and of building elements

Part 3: Laboratory measurements of airborne sound insulation of building elements

(ISO 140-3:1995 + Amd. 1:2004) (includes Amendment 1:2004)

Acoustique – Mesurage de l'isolement acoustique des immeubles et des éléments de construction – Partie 3: Mesurage en laboratoire de l'affaiblissement des bruits aériens par les éléments de construction (ISO 140-3:1995 + Amd. 1:2004) (amendement A1:2004 inclus)

Akustik – Messung der Schalldämmung in Gebäuden und von Bauteilen – Teil 3: Messung der Luftschalldämmung bon Bauteilen in Prüfständen (ISO 140-3:1995 + Amd. 1:2004) (enthält Änderung A1:2004)

This European Standard was approved by CEN on 1995-01-11 and Amendment A1 on 2004-08-08.

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, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland, and the United Kingdom.

## CEN

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

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

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#### Foreword to EN ISO 140-3:1995

International Standard

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,

which was prepared by ISO/TC 43 'Acoustics' of the International Organization for Standardization, has been adopted by Technical Committee CEN/TC 126 'Acoustic properties of building elements and of buildings', the Secretariat of which is held by AFNOR, 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 July 1995 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, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

#### **Endorsement notice**

The text of the International Standard ISO 140-3:1995 was approved by CEN as a European Standard without any modification.

#### Foreword to EN ISO 140-3:1995/A1:2004

This Amendment to EN ISO 140-3:1995 has been prepared by Technical Committee CEN/TC 126 'Acoustic properties of building elements and of buildings', the Secretariat of which is held by AFNOR.

This Amendment 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 June 2005 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, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland, and the United Kingdom.

#### **Endorsement notice**

The text of the Amendment to the International Standard ISO 140-3:1995/Amd. 1:2004 was approved by CEN as an Amendment to the European Standard without any modification.

#### 1 Scope

This part of ISO 140 specifies a laboratory method of measuring the airborne sound insulation of building elements such as walls, floors, doors, windows, façade elements and façades, except those classified as small building elements (for which a measuring method is specified in ISO 140-10<sup>11</sup>).

The results obtained can be used to design building elements with appropriate acoustic properties, to compare the sound insulation properties of building elements and to classify such elements according to their sound insulation capabilities.

The measurements are performed in laboratory test facilities in which transmission of sound on flanking paths is suppressed. Results of measurements made in accordance with this part of ISO 140 therefore shall not be applied directly in the field without accounting for other factors affecting sound insulation, especially flanking transmission and loss factor.

#### 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 140-1:—<sup>2)</sup>, Acoustics — Measurement of sound insulation in buildings and of building elements — Part 1: Requirements for laboratory test facilities with suppressed flanking transmission.

ISO 140-2:1991, Acoustics — Measurement of sound insulation in buildings and of building elements — Part 2: Determination, verification and application of precision data.

ISO 354:1985, Acoustics — Measurement of sound absorption in a reverberation room.

ISO 717-1:—3, Acoustics — Rating of sound insulation in buildings and of building elements — Part 1: Airborne sound insulation.

IEC 225:1966, Octave, half-octave and third-octave band filters intended for the analysis of sounds and vibrations.

IEC 651:1979, Sound level meters.

<sup>1)</sup> 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.

<sup>2)</sup> To be published. (Revision of ISO 140-1:1990)

<sup>3)</sup> To be published. (Revision of ISO 717-1:1982)