

**Akustika. Heliisolatsiooni hindamine
hoonetes ja hooneosadel. Osa 1: Õhuheli
isolatsioon**

Acoustics - Rating of sound insulation in buildings
and of building elements - Part 1: Airborne sound
insulation

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN ISO 717-1:1999 sisaldab Euroopa standardi EN ISO 717-1:1996 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 23.11.1999 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 717-1:1999 consists of the English text of the European standard EN ISO 717-1:1996.</p> <p>This document is endorsed on 23.11.1999 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: Standard defineerib meetodi õhuheli isolatsiooni hindamiseks hoonetes ühearvulise parameetriga. Meetod põhineb standardite ISO140-3, 4, 5, 9 ja 10 kohaselt läbiviidud mõõtmistel.</p>	<p>Scope:</p>
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ICS 91.120.20

Võtmesõnad: akustika, akustilised mõõtmised, heliisolatsioon, hindamine, hooned, hooneosad, õhuheli

ICS 91.120.20

Descriptors: Acoustics, sound insulation, rating.

English version

Acoustics

**Rating of sound insulation in buildings and
of building elements**

**Part 1: Airborne sound insulation
(ISO 717-1:1996)**

Acoustique – Évaluation de l'isolement
acoustique des immeubles et des
éléments de construction – Partie 1:
Isolement aux bruits aériens
(ISO 717-1:1996)

Akustik – Bewertung der Schalldämmung
in Gebäuden und von Bauteilen – Teil 1:
Luftschalldämmung (ISO 717-1:1996)

This European Standard was approved by CEN on 1996-11-30 and is identical to the ISO Standard as referred to.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

CEN

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

Central Secretariat: rue de Stassart 36, B-1050 Brussels

Foreword

International Standard

ISO 717-1:1996 Acoustics – Rating of sound insulation in buildings and of building elements – Airborne sound insulation, 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 products and of buildings' as a European Standard.

ISO 717 comprises the following Parts under the general title 'Acoustics – Rating of sound insulation in buildings and of building elements':

Part 1 Airborne sound insulation

Part 2 Impact sound insulation

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 June 1997 at the latest.

In accordance with the CEN/CENELEC Internal Regulations, the following countries are bound to implement this European Standard:

Austria, Belgium, 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 717-1:1996 was approved by CEN as a European Standard without any modification.

NOTE: Normative references to international publications are listed in Annex ZA (normative).

Introduction

Methods of measurement of airborne sound insulation of building elements and in buildings have been standardized in ISO 140-3, ISO 140-4, ISO 140-5, ISO 140-9 and ISO 140-10. The purpose of this part of ISO 717 is to standardize a method whereby the frequency-dependent values of airborne sound insulation can be converted into a single number characterizing the acoustical performance.

1 Scope

This part of ISO 717

- a) defines single-number quantities for airborne sound insulation in buildings and of building elements such as walls, floors, doors and windows;
- b) takes into consideration the different sound level spectra of various noise sources such as noise sources inside a building and traffic outside a building; and
- c) gives rules for determining these quantities from the results of measurements carried out in one-third-octave or octave bands in accordance with ISO 140-3, ISO 140-4, ISO 140-5, ISO 140-9 and ISO 140-10.

The single-number quantities in accordance with this part of ISO 717 are intended for rating the airborne sound insulation and for simplifying the formulation of acoustical requirements in building codes. The required numerical values of the single-number quantities are specified according to varying needs. The single-number quantities are based on results of measurements in one-third-octave bands or octave bands.

For laboratory measurements made in accordance with ISO 140-3, ISO 140-9 and ISO 140-10, single-number quantities should be calculated using one-third-octave bands only.

The rating of results of measurements carried out over an enlarged frequency range is dealt with in annex B.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 717. 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 717 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 140-4:—¹⁾, *Acoustics — Measurement of sound insulation in buildings and of building elements — Part 4: Field measurements of airborne sound insulation between rooms.*

ISO 140-5:—²⁾, *Acoustics — Measurement of sound insulation in buildings and of building elements — Part 5: Field measurements of airborne sound insulation of façade elements and façades.*

ISO 140-9:1985, *Acoustics — Measurement of sound insulation in buildings and of building elements — Part 9: Laboratory measurement of room-to-room airborne sound insulation of a suspended ceiling with a plenum above it.*

1) To be published. (Revision of ISO 140-4:1978)

2) To be published. (Revision of ISO 140-5:1978)