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**Acoustics - Rating of sound insulation in buildings and
of building elements - Part 1: Airborne sound
insulation (ISO 717-1:2013)**

EESTI STANDARDI EESSÕNA**NATIONAL FOREWORD**

See Eesti standard EVS-EN ISO 717-1:2013 sisaldab Euroopa standardi EN ISO 717-1:2013 ingliskeelset teksti.	This Estonian standard EVS-EN ISO 717-1:2013 consists of the English text of the European standard EN ISO 717-1:2013.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
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English Version

Acoustics - Rating of sound insulation in buildings and of
building elements - Part 1: Airborne sound insulation (ISO 717-
1:2013)

Acoustique - Évaluation de l'isolement acoustique des
immeubles et des éléments de construction - Partie 1:
Isolement aux bruits aériens (ISO 717-1:2013)

Akustik - Bewertung der Schalldämmung in Gebäuden und
von Bauteilen - Teil 1: Luftschalldämmung (ISO 717-
1:2013)

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Foreword

This document (EN ISO 717-1:2013) has been prepared by Technical Committee ISO/TC 43 “Acoustics” in collaboration with Technical Committee CEN/TC 126 “Acoustic properties of building elements 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of an identical text or by endorsement, at the latest by September 2013, and conflicting national standards shall be withdrawn at the latest by September 2013.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

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Endorsement notice

The text of ISO 717-1:2013 has been approved by CEN as EN ISO 717-1:2013 without any modification.

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Introduction

Methods of measurement of airborne sound insulation of building elements and in buildings have been standardized e.g. in ISO 10140-2, ISO 140-4, and ISO 140-5. 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.

References to standards which provide data for single-number evaluation are meant to be examples and therefore are not complete.

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

Part 1: Airborne sound insulation

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;
- 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 10140-2, ISO 140-4, and ISO 140-5.

The single-number quantities in accordance with this part of ISO 717 are intended for rating airborne sound insulation and for simplifying the formulation of acoustical requirements in building codes. An additional single-number evaluation in steps of 0,1 dB is indicated for the expression of uncertainty (except for spectrum adaptation terms). 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 10140, 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 documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. 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 140-5:1998, *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 10140-2:2010, *Acoustics — Laboratory measurement of sound insulation of building elements — Part 2: Measurement of airborne sound insulation*

ISO 10848-2:2006, *Acoustics — Laboratory measurement of the flanking transmission of airborne and impact sound between adjoining rooms — Part 2: Application to light elements when the junction has a small influence*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.