Irish Standard
I.S. EN ISO 717-2:2013

Acoustics - Rating of sound insulation in buildings and of building elements - Part 2: Impact sound insulation (ISO 717 -2:2013)

I.S. EN ISO 717-2:2013

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EUROPEAN STANDARD

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Supersedes EN ISO 717-2:1996

English Version

Acoustics - Rating of sound insulation in buildings and of building elements - Part 2: Impact sound insulation (ISO 717-2:2013)

Acoustique - Évaluation de l'isolement acoustique des immeubles et des éléments de construction - Partie 2: Protection contre le bruit de choc (ISO 717-2:2013)

Akustik - Bewertung der Schalldämmung in Gebäuden und von Bauteilen - Teil 2: Trittschalldämmung (ISO 717-2:2013)

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Foreword

This document (EN ISO 717-2:2013) 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of an identical text or by endorsement, at the latest by September 2013, and conflicting national standards shall be withdrawn at the latest by September 2013.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.

This document supersedes EN ISO 717-2:1996.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 717-2:2013 has been approved by CEN as EN ISO 717-2:2013 without any modification.

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I.S. EN ISO 717-2:2013

INTERNATIONAL STANDARD

ISO 717-2

Third edition
2013-03-01

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

Part 2: Impact sound insulation

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

Partie 2: Protection contre le bruit de choc

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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 717-2 was prepared by Technical Committee ISO/TC 43, *Acoustics*, Subcommittee SC 2, *Building acoustics*.

This third edition cancels and replaces the second edition (ISO 717-2:1996), which has been technically revised. It also incorporates the Amendment ISO 717-2:1996/Amd. 1:2006.

The purpose of this revised version is to:

— allow weighting steps of 0,1 dB to be used for expression of uncertainty;

— update references.

ISO 717 consists of 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*

Introduction

Methods of measurement of impact sound insulation in buildings and of building elements have been standardized in ISO 10140-3 and ISO 140-7. These methods give values for the impact sound insulation which are frequency dependent. The purpose of this part of ISO 717 is to standardize a method whereby the frequency-dependent values of impact sound insulation can be converted into a single number characterizing the acoustical performance.

The method has been widely used since 1968. However, since there is some evidence that it could be improved, a spectrum adaptation term is added and it is recommended that experience be gathered with this.

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

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

Part 2: Impact sound insulation

1 Scope

This part of ISO 717:

a) defines single-number quantities for impact sound insulation in buildings and of floors;

b) gives rules for determining these quantities from the results of measurements carried out in one-third-octave bands in accordance with ISO 10140-3 and ISO 140-7, and in octave bands in accordance with that option in ISO 140-7 for field measurements only;

c) defines single-number quantities for the impact sound reduction of floor coverings and floating floors calculated from the results of measurements carried out in accordance with ISO 10140-3;

d) specifies a procedure for evaluating the weighted reduction in impact sound pressure level by floor coverings on lightweight floors.

The single-number quantities in accordance with this part of ISO 717 are intended for rating impact 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 rating of results from measurements carried out over an enlarged frequency range is described in Annex A.

A method for obtaining single-number quantities for bare heavy floors according to their performance in combination with floor coverings is described in Annex B.

An example of the calculation of a single-number quantity is given in Annex C.

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

ISO 10140-1, *Acoustics — Laboratory measurement of sound insulation of building elements — Part 1: Application rules for specific products*

ISO 10140-3:2010, *Acoustics — Laboratory measurement of sound insulation of building elements — Part 3: Measurement of impact sound insulation*

ISO 10140-5, *Acoustics — Laboratory measurement of sound insulation of building elements — Part 5: Requirements for test facilities and equipment*