



NSAI
Standards

Irish Standard
I.S. EN ISO 717-2:2020

Acoustics - Rating of sound insulation in buildings and of building elements - Part 2: Impact sound insulation (ISO 717-2:2020)

I.S. EN ISO 717-2:2020

Incorporating amendments/corrigenda/National Annexes issued since publication:

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National Foreword

I.S. EN ISO 717-2:2020 is the adopted Irish version of the European Document EN ISO 717-2:2020, Acoustics - Rating of sound insulation in buildings and of building elements - Part 2: Impact sound insulation (ISO 717-2:2020)

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EUROPEAN STANDARD

EN ISO 717-2

NORME EUROPÉENNE

EUROPÄISCHE NORM

December 2020

ICS 91.120.20

Supersedes EN ISO 717-2:2013

English Version

Acoustics - Rating of sound insulation in buildings and of building elements - Part 2: Impact sound insulation (ISO 717-2:2020)

Acoustique - Évaluation de l'isolement acoustique des immeubles et des éléments de construction - Partie 2: Protection contre le bruit de choc (ISO 717-2:2020)

Akustik - Bewertung der Schalldämmung in Gebäuden und von Bauteilen - Teil 2: Trittschalldämmung (ISO 717-2:2020)

This European Standard was approved by CEN on 12 December 2020.

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EN ISO 717-2:2020 (E)

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European foreword

This document (EN ISO 717-2:2020) 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of an identical text or by endorsement, at the latest by June 2021, and conflicting national standards shall be withdrawn at the latest by June 2021.

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

This document supersedes EN ISO 717-2:2013.

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Endorsement notice

The text of ISO 717-2:2020 has been approved by CEN as EN ISO 717-2:2020 without any modification.

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**INTERNATIONAL
STANDARD**

**ISO
717-2**

Fourth edition
2020-12

**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



Reference number
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ISO 717-2:2020(E)

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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 43, *Acoustics*, Subcommittee SC 2, *Building acoustics*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 126, *Acoustic properties of building elements and of buildings*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This fourth edition cancels and replaces the third edition (ISO 717-2:2013), which has been technically revised.

The main changes compared to the previous edition are as follows:

- A new [Annex D](#) with a method for rating heavy/soft impact sound insulation using an A-weighted maximum impact sound pressure level.

A list of all parts in the ISO 717 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

Methods of measurement of impact sound insulation in buildings and of building elements have been standardized in ISO 10140-3 and ISO 16283-2. These methods give values for the impact sound insulation which are frequency dependent. The purpose of this document 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.

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

Part 2: Impact sound insulation

1 Scope

This document

- 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 16283-2, and in octave bands in accordance with that option in ISO 16283-2 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, and
- 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 document 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 where it is needed for the expression of uncertainty (except for spectrum adaptation terms). Numerical values of the single-number quantities are specified where required for calculations.

The rating of measurements over an enlarged frequency range is given in [Annex A](#).

A method for obtaining single-number quantities for bare heavy floors according to their performance in combination with floor coverings is given in [Annex B](#).

Example calculations of single-number quantities are given in [Annex C](#).

The rating of measurements with a heavy and soft impact source (rubber ball) is given in [Annex D](#).

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

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*

ISO 12999-1, *Acoustics — Determination and application of measurement uncertainties in building acoustics — Part 1: Sound insulation*

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