

# SVENSK STANDARD

## SS-EN ISO 717-2:2020

**Byggakustik – Värdering av ljudisolering i byggnader och hos byggdelar –**

**Del 2: Stegljudsisolering (ISO 717-2:2020)**

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

**Part 2: Impact sound insulation (ISO 717-2:2020)**



**sis** Svenska  
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Standarden är framtagen av kommittén för Byggakustik, SIS/TK 197.

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Europastandarden EN ISO 717-2:2020 gäller som svensk standard. Detta dokument innehåller den officiella engelska versionen av EN ISO 717-2:2020.

Denna standard ersätter SS-EN ISO 717-2:2013, utgåva 2 och SS-EN ISO 717-2:2013, utgåva 2

The European Standard EN ISO 717-2:2020 has the status of a Swedish Standard. This document contains the official version of EN ISO 717-2:2020.

This standard supersedes the SS-EN ISO 717-2:2013, edition 2 and SS-EN ISO 717-2:2013, edition 2

## LÄSANVISNINGAR FÖR STANDARDER

I dessa anvisningar behandlas huvudprinciperna för hur regler och yttre begränsningar anges i standardiseringsprodukter.

### Krav

Ett krav är ett uttryck i ett dokumentets innehåll som anger objektivet verifierbara kriterier som ska uppfyllas och från vilka ingen avvikelse tillåts om efterlevnad av dokumentet ska kunna åberopas. Krav uttrycks med hjälpverbet ska (eller ska inte för förbud).

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En rekommendation är ett uttryck i ett dokumentets innehåll som anger en valmöjlighet eller ett tillvägagångssätt som bedöms vara särskilt lämpligt utan att nödvändigtvis nämna eller utesluta andra. Rekommendationer uttrycks med hjälpverbet bör (eller bör inte för avrådanden).

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Instruktioner anges i imperativ form och används för att ange hur något görs eller utförs. De kan underordnas en annan regel, såsom ett krav eller en rekommendation. De kan även användas självständigt, och är då att betrakta som krav.

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En förklaring är ett uttryck i ett dokumentets innehåll som förmedlar information. En förklaring kan uttrycka tillåtelse, möjlighet eller förmåga. Tillåtelse uttrycks med hjälpverbet får (eller motsatsen behöver inte). Möjlighet och förmåga uttrycks med hjälpverbet kan (eller motsatsen kan inte).

## READING INSTRUCTIONS FOR STANDARDS

These instructions cover the main principles for the use of provisions and external constraints in standardization deliverables.

### Requirement

A requirement is an expression, in the content of a document, that conveys objectively verifiable criteria to be fulfilled, and from which no deviation is permitted if conformance with the document is to be claimed. Requirements are expressed by the auxiliary shall (or shall not for prohibition).

### Recommendation

A recommendation is an expression, in the content of a document, that conveys a suggested possible choice or course of action deemed to be particularly suitable, without necessarily mentioning or excluding others. Recommendations are expressed by the auxiliary should (or should not for dissuasion).

### Instruction

An instruction is expressed in the imperative mood and is used in order to convey an action to be performed. It can be subordinated to another provision, such as a requirement or a recommendation. It can also be used independently and is then to be regarded as a requirement.

### Statement

A statement is an expression, in the content of a document, that conveys information. A statement can express permission, possibility or capability. Permission is expressed by the auxiliary may (its opposite being need not). Possibility and capability are expressed by the auxiliary can (its opposite being cannot).

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.

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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

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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.

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](http://www.iso.org/directives)).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

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](http://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](http://www.iso.org/members.html).

## 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.

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

### Endorsement notice

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



## 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*

ISO 16283-2:2018, *Acoustics — Field measurement of sound insulation in buildings and of building elements — Part 2: Impact sound insulation*