

STN	Akustika Laboratórne meranie bočného prenosu zvuku šíriaceho sa vzduchom a krokovým hlukom medzi susediacimi miestnosťami Časť 1: Rámcový dokument (ISO 10848-1: 2017)	STN EN ISO 10848-1 73 0509
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Acoustics - Laboratory and field measurement of flanking transmission for airborne, impact and building service equipment sound between adjoining rooms - Part 1: Frame document (ISO 10848-1:2017)

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 03/18

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English Version

**Acoustics - Laboratory and field measurement of flanking transmission for airborne, impact and building service equipment sound between adjoining rooms - Part 1:
Frame document (ISO 10848-1:2017)**

Acoustique - Mesurage en laboratoire et sur site des transmissions latérales du bruit aérien, des bruits de choc et du bruit d'équipement technique de bâtiment entre des pièces adjacentes - Partie 1: Document cadre (ISO 10848-1:2017)

Akustik - Messung der Flankenübertragung von Luftschall, Trittschall und Schall von Gebäudetechnischen Anlagen zwischen benachbarten Räumen im Prüfstand und am Bau - Teil 1: Rahmendokument (ISO 10848-1:2017)

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EN ISO 10848-1:2017 (E)

Contents	Page
European foreword.....	3

European foreword

This document (EN ISO 10848-1:2017) 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of an identical text or by endorsement, at the latest by April 2018 and conflicting national standards shall be withdrawn at the latest by April 2018.

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 10848-1:2006.

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Endorsement notice

The text of ISO 10848-1:2017 has been approved by CEN as EN ISO 10848-1:2017 without any modification.

INTERNATIONAL STANDARD

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Acoustics — Laboratory and field measurement of flanking transmission for airborne, impact and building service equipment sound between adjoining rooms —

Part 1: Frame document

Acoustique — Mesurage en laboratoire et sur site des transmissions latérales du bruit aérien, des bruits de choc et du bruit d'équipement technique de bâtiment entre des pièces adjacentes —

Partie 1: Document cadre



Reference number
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Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

Contents

	Page
Foreword	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	2
4 Quantities to characterize flanking transmission	7
4.1 General.....	7
4.2 Normalized flanking level difference, $D_{n,f}$, normalized flanking impact sound pressure level, $L_{n,f}$, and normalized flanking equipment sound pressure level, $L_{ne0,f}$	8
4.2.1 General.....	8
4.2.2 $D_{v,ij,n}$ estimated from measurements of $D_{n,f}$	8
4.3 Vibration reduction index, K_{ij}	8
4.3.1 General.....	8
4.3.2 K_{ij} for combinations of Type A and B elements.....	9
4.3.3 Strong coupling between Type A elements.....	9
4.4 Normalized direction-average vibration level difference, $D_{v,ij,n}$	9
4.4.1 General.....	9
4.5 Selection of the measurement method.....	10
5 Instrumentation	10
5.1 General.....	10
5.2 Verification.....	11
6 General requirements for test facility and test elements	11
6.1 Laboratory.....	11
6.2 Field.....	14
7 Measurement methods	14
7.1 Measurement of $D_{n,f}$, $L_{n,f}$ and $L_{ne0,f}$	14
7.1.1 Generation of sound field in the source room.....	14
7.1.2 Measurement of the average sound pressure level.....	16
7.1.3 Measurement of reverberation time and evaluation of the equivalent sound absorption area.....	18
7.2 Measurement of K_{ij} and $D_{v,ij,n}$	18
7.2.1 General aspects for K_{ij}	18
7.2.2 General aspects for $D_{v,ij,n}$	18
7.2.3 Vibration measurement.....	19
7.2.4 Generation of vibration on the source element.....	20
7.2.5 Procedure for Type A and B elements.....	20
7.2.6 Steady-state excitation.....	21
7.2.7 Transient excitation.....	22
7.3 Measurement of the structural reverberation time for Type A elements.....	22
7.3.1 General.....	22
7.3.2 Excitation of the test element.....	22
7.3.3 Measurement and excitation positions.....	23
7.3.4 Evaluation of the decay curves.....	23
7.3.5 Lower limits for reliable results caused by filter and detector.....	24
7.4 Frequency range of measurement.....	24
8 Influences from other parts of the test facility or the building construction in the field situation	24
8.1 Laboratory installations of test junctions.....	24

ISO 10848-1:2017(E)

8.2	Criterion to assess flanking transmission for junctions comprised of Type A elements.....	25
8.2.1	General.....	25
8.2.2	Practical considerations.....	25
8.3	Verification procedure for a Type B flanking element that is structurally independent of a separating element.....	25
9	Shielding.....	26
10	Expression of results.....	26
Annex A (normative)	Assessing the decrease in vibration level with distance.....	28
Annex B (normative)	Calibrated structure-borne sound source.....	30
Bibliography		34

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 on 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 the following URL: www.iso.org/iso/foreword.html.

This document was prepared by ISO/TC 43, *Acoustics*, Subcommittee SC 2, *Building acoustics*.

This second edition cancels and replaces the first edition (ISO 10848-1:2006), which has been technically revised with the following changes:

- a) extension to field measurements;
- b) extension to building service equipment;
- c) normalized direction-averaged vibration level difference for junctions between lightweight elements has been introduced;
- d) an assessment method for the decrease in vibration level with distance has been introduced;
- e) transmission function measurements with a calibrated structure-borne sound source has been introduced;
- f) definitions of element types A and B to avoid issues with the terms “heavy” and “light” have been added.

A list of all the parts in the ISO 10848 series can be found on the ISO website.

Acoustics — Laboratory and field measurement of flanking transmission for airborne, impact and building service equipment sound between adjoining rooms —

Part 1: Frame document

1 Scope

ISO 10848 (all parts) specifies measurement methods to characterize the flanking transmission of one or several building components. These measurements are performed in a laboratory test facility or in the field.

The performance of the building components is expressed either as an overall quantity for the combination of elements and junction (such as the normalized flanking level difference and/or normalized flanking impact sound pressure level) or as the vibration reduction index of a junction or the normalized direction-average vibration level difference of a junction.

Two approaches are used for structure-borne sound sources in buildings, a normalized flanking equipment sound pressure level and a transmission function that can be used to estimate sound pressure levels in a receiving room due to structure-borne excitation by service equipment in a source room. The former approach assumes that flanking transmission is limited to one junction (or no junction if the element supporting the equipment is the separating element), and the latter considers the combination of direct (if any) and all flanking transmission paths.

This document contains definitions, general requirements for test elements and test rooms, and measurement methods. Guidelines are given for the selection of the quantity to be measured, depending on the junction and the types of building elements involved. Other parts of ISO 10848 specify the application for different types of junction and building elements.

The quantities characterizing the flanking transmission can be used to compare different products, or to express a requirement, or as input data for prediction methods, such as ISO 12354-1 and ISO 12354-2.

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 717-1, *Acoustics — Rating of sound insulation in buildings and of building elements — Part 1: Airborne sound insulation*

ISO 717-2, *Acoustics — Rating of sound insulation in buildings and of building elements — Part 2: Impact sound insulation*

ISO 3382-2, *Acoustics — Measurement of room acoustic parameters — Part 2: Reverberation time in ordinary rooms*

ISO 7626-1, *Mechanical vibration and shock — Experimental determination of mechanical mobility — Part 1: Basic terms and definitions, and transducer specifications*

ISO 7626-5, *Vibration and shock — Experimental determination of mechanical mobility — Part 5: Measurements using impact excitation with an exciter which is not attached to the structure*

ISO 10848-1:2017(E)

ISO 10140-4:2010, *Acoustics — Laboratory measurement of sound insulation of building elements — Part 4: Measurement procedures and requirements*

ISO 10140-5:2010, *Acoustics — Laboratory measurement of sound insulation of building elements — Part 5: Requirements for test facilities and equipment*

IEC 61183, *Electroacoustics—Random-incidence and diffuse-field calibration of sound level meters*

IEC 61260 (all parts), *Electroacoustics — Octave-band and fractional-octave-band filters*

IEC 61672-1, *Electroacoustics — Sound level meters elements — Part 1: Specifications*

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