Irish Standard
I.S. EN ISO 16251-1:2014

Acoustics - Laboratory measurement of the reduction of transmitted impact noise by floor coverings on a small floor mock-up - Part 1: Heavyweight compact floor (ISO 16251-1:2014)

I.S. EN ISO 16251-1:2014

Incorporating amendments/corrigenda/National Annexes issued since publication:

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Acoustics - Laboratory measurement of the reduction of transmitted impact noise by floor coverings on a small floor mock-up - Part 1: Heavyweight compact floor (ISO 16251-1:2014)

Acoustique - Mesurage en laboratoire de la réduction de la transmission du bruit de choc par les revêtements de sol sur un plancher normalisé de dimensions réduites - Partie 1: Plancher lourd (ISO 16251-1:2014)

Akustik - Labormessung der Trittschallminderung von Deckenauflagen auf kleinflächigen Prüfdeckennachbildungen - Teil 1: Schwere Massivdecke (ISO 16251-1:2014)

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

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Foreword

This document (EN ISO 16251-1:2014) 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of an identical text or by endorsement, at the latest by February 2015, and conflicting national standards shall be withdrawn at the latest by February 2015.

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 16251-1:2014 has been approved by CEN as EN ISO 16251-1:2014 without any modification.

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INTERNATIONAL STANDARD

ISO 16251-1

First edition
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Acoustics — Laboratory measurement of the reduction of transmitted impact noise by floor coverings on a small floor mock-up —

Part 1: Heavyweight compact floor

Acoustique — Mesurage en laboratoire de la réduction de la transmission du bruit de choc par les revêtements de sol sur un plancher normalisé de dimensions réduites —

Partie 1: Plancher lourd

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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).

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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 meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 43, *Acoustics*, Subcommittee SC 2, *Building acoustics*.

ISO 16251 consists of the following parts, under the general title *Acoustics — Laboratory measurement of the reduction of transmitted impact noise by floor coverings on a small floor mock-up*:

— *Part 1: Heavyweight compact floor*

Introduction

The improvement of impact sound reduction is the main quantity for describing the acoustic behaviour of floor coverings. Its determination is described in the ISO 10140[4]series and requires the use of a special test facility. This facility consists of two rooms (the lower one of at least 50 m^3), separated by an approximately 14 cm thick concrete slab or a special timber joist floor. Manufacturers of floor coverings see the advantage of having their own test facilities, but the investment often is not affordable for small- and medium-sized enterprises. This part of ISO 16251 aims to reduce the effort for the determination of the impact sound reduction. A standardized test method is provided, which yields results comparable to those gained with the ISO 10140 series[4].

Acoustics — Laboratory measurement of the reduction of transmitted impact noise by floor coverings on a small floor mock-up —

Part 1: Heavyweight compact floor

1 Scope

This part of ISO 16251 specifies a laboratory measurement method to determine the improvement of impact sound insulation by a floor covering when laid on a standard concrete floor mock-up and excited by a standard tapping machine. The method is restricted to soft, flexible floor coverings, which transmit impact sound mainly "locally" into the floor, i.e. through the area close to the points of excitation, so that the size of the flooring specimen does not have an influence on the results. Examples of such floor coverings are carpets, PVC, and linoleum. These floor coverings correspond to ISO 10140-1:2010[5], Annex H, category I.

The results only provide information about the noise radiated. A subjective classification of the quality of the floor coverings is not intended.

The method is kept as close as possible to the ISO 10140[4] series and yields the same results within the range of uncertainty and within the range of application. In the case of difference with ISO 10140, the result of the ISO 10140 measurement shall be used.

This part of ISO 16251 provides the measurement method. Product test codes can contain further requirements concerning the specimens, such as temperature range, the number of test specimens or special mounting conditions.

NOTE If non-soft, non-flexible floorings are tested, e.g. those with a laminated structure, increased deviations from the results of the ISO 10140[4] series method may occur due to the dependency on the specimen size.

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

ISO 16063 (all parts), *Methods for the calibration of vibration and shock transducers*

3 Terms and definitions

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

