Second edition
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Acoustics — Field measurements of airborne and impact sound insulation and of service equipment sound — Survey method

Acoustique — Mesurages in situ de l'isolement aux bruits aériens et de la transmission des bruits de choc ainsi que du bruit des équipements — Méthode de contrôle

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Foreword

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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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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 products and of buildings,* in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 10052:2004), which has been technically revised.

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

— implementation of ISO 10052:2004/Amd 1:2010;

— references have been updated;

— added to the scope: for heavy/soft impact sound insulation, the results are given as A-weighted maximum levels;

— 2 terms added: maximum impact sound pressure level $L_{\mathrm{i},F\mathrm{max}}$ and A-weighted maximum impact sound pressure level $L_{\mathrm{iA},F\mathrm{max}}$;

— including heavy/soft impact sound test procedure and impact sound pressure level evaluation procedure;

— editorial updating.

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

This document describes survey field test methods which can be used for surveying the acoustic characteristics of the airborne sound insulation, impact sound insulation and of the sound pressure levels from service equipment. The methods may be used for screening tests of the acoustical properties of buildings. The methods are not intended to be applied for measuring acoustical properties of building elements.

The approach of the survey methods is to simplify the measurement of sound pressure levels in rooms by using a hand-held sound level instrument and by manually sweeping the microphone in the room space. The correction for reverberation time can be either estimated by usage of tabular values or be based on measurements. The measurement of airborne and impact sound insulation is carried out in octave bands. For measuring sound from domestic service equipment, A - or C -weighted sound pressure levels are recorded.

Measurements are performed with specified operation conditions and operation cycles. The operating conditions and operating cycles given in Annex B are only used if they are not opposed to national requirements and regulations.

The measurement uncertainty of the results obtained using the survey method is a priori larger than the uncertainty inherent in the corresponding test methods on engineering level.

NOTE Engineering methods for field measurements of airborne and impact sound insulation are dealt with in ISO 16283-1 and ISO 16283-2. Engineering methods for field measurements of airborne sound insulation of façade elements and façades are dealt with in ISO 16283-3. An engineering method for measurement of service equipment sound is dealt with in ISO 16032.