

ICS 91.120.20
CCS A 59



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 19889.3-2026

Replacing GB/T 19889.5-2006

**Acoustics - Field measurement of sound insulation in buildings
and of building elements - Part 3: Airborne sound insulation of
facade elements and facades**

声学 建筑和建筑构件隔声的现场测量 第3部分：外墙和外墙构件空气声隔声
(English Translation)

Issued on: January 28, 2026

Implemented on: August 1, 2026

Issued by: State Administration for Market Regulation

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents".

Drafting.

This document is Part 3 of GB/T 19889 "Sound Insulation of Buildings and Building Components - Field Measurement". It covers the use of sound pressure measurement.

The national standard document for on-site measurement of the sound insulation performance of buildings and building components has been published in the following

parts.

---GB/T 19889.1 On-site measurement of acoustic insulation of buildings and building components - Part 1: Airborne sound insulation between rooms;

---GB/T 19889.3 On-site measurement of sound insulation of buildings and building components - Part 3: Airborne sound of exterior wall components and exterior walls Sound insulation;

---GB/T 19889.7 Acoustics - Measurement of sound insulation of buildings and building components - Part 7: Field measurement of impact sound insulation.

This document replaces GB/T 19889.5-2006 "Acoustics of Buildings and Building Components - Measurement of Sound Insulation - Part 5: Exterior Wall Components and Exterior Walls".

"Field Measurement of Airborne Sound Insulation" differs from GB/T 19889.5-2006 in that, aside from structural adjustments and editorial changes, the main technical changes are as follows.

as follows.

---The scope of room volumes to which this document applies has been expanded (see Chapter 1);

---Added "Indoor Corner Sound Pressure Level", "Indoor Low-Frequency Average Sound Pressure Level", "Mechanized Continuous Moving Microphone", and "Manual Scanning Microphone" the term and definition of "handheld microphone" (see 3.4, 3.5, 3.9, 3.10 and 3.11);

---Added instructions that this document applies to measurements regardless of whether the indoor sound field approximates a diffuse field (see Chapters 1 and 6);

---Added the option for operators to remain in the receiving room during measurement, and the ability to identify when operators remain in the room due to necessity.

Methods for dealing with noise generated by the organism's own activities (see Chapter 6, 7.2.1, 7.4.1, and 8.1);

---Added four paths for handheld microphone scanning of indoor sound pressure level and background noise (see 7.2.3);

---Added the ability to measure the center frequency of 50Hz in the receiving room when the loudspeaker is used as the sound source and the volume of the receiving room is less than 25m³.

Additional low-frequency measurements of indoor sound pressure level, background noise, and reverberation time in the 1/3 octave band at 63 Hz and 80 Hz (see section 6) (Chapters 7.3, 7.4.1 and 8.4)

---The calculation method for the normalized or normalized sound pressure level difference, which is converted from 1/3 octave to octave, has been changed (see Chapter 11).

Chapter 8 of GB/T 19889.5-2006

---A normative appendix, "Speaker Requirements," has been added, clarifying the measurement method for loudspeaker directivity (see Appendix C).

This document is modified to adopt ISO 16283-3:2016 "Acoustics of buildings and building components - Field measurement of sound insulation - Part 3: Exterior walls".

Sound insulation.

The technical differences between this document and ISO 16283-3:2016, and the reasons therefor, are as follows.

---ISO 10140 has been replaced with the normatively referenced GB/T 45305 (all parts) for ease of use (see Chapter 1 and...).

Chapter 6);

---ISO 3382-2 has been replaced with the normatively referenced GB/T 36075.2 for ease of use (see 4.1, 8.1);

---IEC 61260 and IEC 61672-1 have been replaced with the normatively referenced GB/T 3241 (all parts) and GB/T 3785.1.

Adapting to my country's technological conditions (see 4.1, 4.3);

---IEC 60942 has been replaced with the normatively referenced GB/T 15173 for ease of use (see 4.2);

---IEC 61183 has been replaced with the normatively referenced GB/T 17312, and the normatively referenced GB/T 27025 has been added to adapt to...

To improve operability based on my country's technological conditions (see 4.3);

---ISO 18233 has been replaced with the normatively referenced GB/T 25079 for ease of use (see Chapter 6, 8.1);

---The obsolete ISO 15712-3 has been replaced with the normatively referenced ISO 12354-3 to facilitate the implementation of the standard (see Chapter 6);

---ISO 12999-1 has been replaced with the normatively referenced GB/T 19889.2 to adapt to my country's technical conditions and increase operability.

(See Chapter 13);

---Considering the gypsum board thickness specifications in my country, the gypsum board thickness in Appendix B has been changed from 12.5mm to 12mm.