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Acoustics - Test methods for the qualification of the acoustic environment - Part 2: Determination of the environmental correction (ISO 26101-2:2024)

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. 08/24

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**Acoustics - Test methods for the qualification of the
acoustic environment - Part 2: Determination of the
environmental correction (ISO 26101-2:2024)**

Acoustique - Méthodes d'essai pour la qualification de
l'environnement acoustique - Partie 2: Détermination
de la correction d'environnement (ISO 26101-2:2024)

Akustik - Prüfverfahren zur Qualifizierung der
akustischen Umgebung - Teil 2: Bestimmung der
Umgebungskorrektur (ISO 26101-2:2024)

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EN ISO 26101-2:2024 (E)

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European foreword

This document (EN ISO 26101-2:2024) has been prepared by Technical Committee ISO/TC 43 "Acoustics" in collaboration with Technical Committee CEN/TC 211 "Acoustics" the secretariat of which is held by DIN.

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International Standard

ISO 26101-2

Acoustics — Test methods for the qualification of the acoustic environment —

Part 2: Determination of the environmental correction

*Acoustique — Méthodes d'essai pour la qualification de
l'environnement acoustique —*

Partie 2: Détermination de la correction d'environnement

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ISO 26101-2:2024(en)**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 document 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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This document was prepared by Technical Committee ISO/TC 43, *Acoustics*, Subcommittee SC 1, *Noise*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 211, *Acoustics*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

A list of all parts in the ISO 26101 series can be found on the ISO website.

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ISO 26101-2:2024(en)**Introduction**

This document is one of the series ISO 26101, which specify various methods for qualifying the acoustic environment. The methods specified in this document permit the qualification of an acoustic environment that approximates to an acoustic free field near one or more reflecting planes. In other words, an acoustic environment in which the effect of reflected sound on sound pressure level measurements is sufficiently small, so that it can be corrected for with the so-called environmental correction K_2 . K_2 can be needed to determine the sound power level, see e.g. ISO 3744 or ISO 3746^[3], or the emission sound pressure level, see e.g. ISO 11201^[6], ISO 11202^[7] and ISO 11204^[8].

It is expected that the qualification procedures outlined in this document will be referred to by other International Standards and industry test codes. In such cases, these documents making reference to this document can specify qualification criteria based on the environmental correction K_2 determined according to this document.

Acoustics — Test methods for the qualification of the acoustic environment —

Part 2: Determination of the environmental correction

1 Scope

This document specifies methods for qualifying an environment that approximates to an acoustic free field near one or more reflecting planes. The goal of the qualification is to determine the environmental correction K_2 , which is used to correct for reflected sound when determining the sound power level or sound energy level of a noise source from sound pressure levels measured on a surface enveloping the noise source (machinery or equipment) in such an environment.

In practice, the K_2 value determined will be a function of both the reflected sound from the test environment and the shape and size of the measurement surface used for the K_2 determination. For the purposes of this document and the documents that refer to it, the differences between K_2 values determined with different measurement surfaces are assumed to be included in the stated measurement uncertainty for the test method.

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 3744:2024, *Acoustics — Determination of sound power levels of noise sources using sound pressure — Engineering methods for an essentially free field over a reflecting plane*

ISO 3745:2012, *Acoustics — Determination of sound power levels and sound energy levels of noise sources using sound pressure — Precision methods for anechoic rooms and hemi-anechoic rooms*

ISO 6926, *Acoustics — Requirements for the performance and calibration of reference sound sources used for the determination of sound power levels*

ISO 26101-1, *Acoustics — Test methods for the qualification of the acoustic environment — Part 1: Qualification of free-field environments*

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