

**Akustika. Müraekspositsiooni määramine
töökeskkonnas. Tehniline meetod**

Acoustics - Determination of occupational noise exposure -
Engineering method

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN ISO 9612:2009 sisaldab Euroopa standardi EN ISO 9612:2009 ingliskeelset teksti.

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English Version

Acoustics - Determination of occupational noise exposure - Engineering method (ISO 9612:2009)

Acoustique - Détermination de l'exposition au bruit en
milieu de travail - Méthode d'expertise (ISO 9612:2009)

Akustik - Bestimmung der Lärmexposition am Arbeitsplatz -
Verfahren der Genauigkeitsklasse 2 (Ingenieurverfahren)
(ISO 9612:2009)

This European Standard was approved by CEN on 5 March 2009.

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Foreword

This document (EN ISO 9612:2009) 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 DS.

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of an identical text or by endorsement, at the latest by October 2009, and conflicting national standards shall be withdrawn at the latest by October 2009.

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Endorsement notice

The text of ISO 9612:2009 has been approved by CEN as a EN ISO 9612:2009 without any modification.

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Introduction

This International Standard provides a stepwise approach to the determination of occupational noise exposure from noise level measurements. The procedure contains the following major steps: work analysis, selection of measurement strategy, measurements, error handling and uncertainty evaluations, calculations, and presentation of results. This International Standard specifies three different measurement strategies: task-based measurement; job-based measurement; and full-day measurement. This International Standard gives guidance on selecting an appropriate measurement strategy for a particular work situation and purpose of investigation. This International Standard also provides an informative spreadsheet to allow calculation of measurement results and uncertainties. ISO is not responsible for errors that may arise or occur with the use of this spreadsheet.

This International Standard recognizes the use of hand-held sound level meters as well as personal sound exposure meters. The methods specified optimize the effort required for obtaining a given accuracy.

Acoustics — Determination of occupational noise exposure — Engineering method

1 Scope

This International Standard specifies an engineering method for measuring workers' exposure to noise in a working environment and calculating the noise exposure level. This International Standard deals with A-weighted levels but is applicable also to C-weighted levels. Three different strategies for measurement are specified. The method is useful where a determination of noise exposure to engineering grade is required, e.g. for detailed noise exposure studies or epidemiological studies of hearing damage or other adverse effects.

The measuring process requires observation and analysis of the noise exposure conditions so that the quality of the measurements can be controlled. This International Standard provides methods for estimating the uncertainty of the results.

This International Standard is not intended for assessment of masking of oral communication or assessment of infrasound, ultrasound and non-auditory effects of noise. It does not apply to the measurement of the noise exposure of the ear when hearing protectors are worn.

Results of the measurements performed in accordance with this International Standard can provide useful information when defining priorities for noise control measures.

2 Normative references

The following referenced documents are indispensable for the application 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 1999, *Acoustics — Determination of occupational noise exposure and estimation of noise-induced hearing impairment*

ISO/IEC Guide 98-3, *Uncertainty of measurement — Part 3: Guide to the expression of uncertainty in measurement (GUM:1995)*

IEC 60942:2003, *Electroacoustics — Sound calibrators*

IEC 61252, *Electroacoustics — Specifications for personal sound exposure meters*

IEC 61672-1:2002, *Electroacoustics — Sound level meters — Part 1: Specifications*

3 Terms and definitions

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