



SLOVENSKI STANDARD SIST EN ISO 16032:2024

01-julij-2024

Nadomešča:
SIST EN ISO 16032:2005

Akustika - Merjenje ravni zvočnega tlaka obratovalne opreme ali aktivnosti v stavbah - Inženirska metoda (ISO 16032:2024)

Acoustics - Measurement of sound pressure level from service equipment or activities in buildings - Engineering method (ISO 16032:2024)

Akustik - Messung des Schalldruckpegels von haustechnischen Anlagen oder Aktivitäten in Gebäuden - Standardverfahren (ISO 16032:2024)

Acoustique - Mesurage du niveau de pression acoustique des équipements techniques ou activités dans les bâtiments - Méthode d'expertise (ISO 16032:2024)

Ta slovenski standard je istoveten z: **EN ISO 16032:2024**

ICS:

17.140.20	Emisija hrupa naprav in opreme	Noise emitted by machines and equipment
91.120.20	Akustika v stavbah. Zvočna izolacija	Acoustics in building. Sound insulation

SIST EN ISO 16032:2024

en,fr,de

EUROPEAN STANDARD

EN ISO 16032

NORME EUROPÉENNE

EUROPÄISCHE NORM

March 2024

ICS 17.140.20; 91.120.20; 91.140.01

Supersedes EN ISO 16032:2004

English Version

Acoustics - Measurement of sound pressure level from service equipment or activities in buildings - Engineering method (ISO 16032:2024)

Acoustique - Mesurage du niveau de pression acoustique des équipements techniques ou activités dans les bâtiments - Méthode d'expertise (ISO 16032:2024)

Akustik - Messung des Schalldruckpegels von haustechnischen Anlagen oder Aktivitäten in Gebäuden - Standardverfahren (ISO 16032:2024)

This European Standard was approved by CEN on 1 March 2024.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and United Kingdom.

[SIST EN ISO 16032:2024](https://standards.iteh.ai/SIST/EN/ISO/16032/2024)

<https://standards.iteh.ai/catalog/standards/sist/d6d32897-763a-4b53-b3d4-b29f73138139/sist-en-iso-16032-2024>



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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Contents	Page
European foreword.....	3

iTeh Standards
(<https://standards.itih.ai>)
Document Preview

[SIST EN ISO 16032:2024](https://standards.itih.ai/catalog/standards/sist/d6d32897-763a-4b53-b3d4-b29f73138139/sist-en-iso-16032-2024)

<https://standards.itih.ai/catalog/standards/sist/d6d32897-763a-4b53-b3d4-b29f73138139/sist-en-iso-16032-2024>

European foreword

This document (EN ISO 16032:2024) 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 September 2024, and conflicting national standards shall be withdrawn at the latest by September 2024.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN ISO 16032:2004.

Any feedback and questions on this document should be directed to the users' national standards body/national committee. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

iTeh Standards
(<https://standards.iteh.ai>)
Endorsement notice

The text of ISO 16032:2024 has been approved by CEN as EN ISO 16032:2024 without any modification.

[SIST EN ISO 16032:2024](https://standards.iteh.ai/catalog/standards/sist/d6d32897-763a-4b53-b3d4-b29f73138139/sist-en-iso-16032-2024)

<https://standards.iteh.ai/catalog/standards/sist/d6d32897-763a-4b53-b3d4-b29f73138139/sist-en-iso-16032-2024>



**International
Standard**

ISO 16032

**Acoustics — Measurement of
sound pressure level from service
equipment or activities in buildings
— Engineering method**

*Acoustique — Mesurage du niveau de pression acoustique des
équipements techniques ou activités dans les bâtiments —
Méthode d'expertise*

**Second edition
2024-02**

Standards
(<https://standards.iteh.ai>)
Document Preview

[SIST EN ISO 16032:2024](https://standards.iteh.ai/catalog/standards/sist/d6d32897-763a-4b53-b3d4-b29f73138139/sist-en-iso-16032-2024)

<https://standards.iteh.ai/catalog/standards/sist/d6d32897-763a-4b53-b3d4-b29f73138139/sist-en-iso-16032-2024>

ISO 16032:2024(en)

iTeh Standards
(<https://standards.iteh.ai>)
Document Preview

[SIST EN ISO 16032:2024](https://standards.iteh.ai/catalog/standards/sist/d6d32897-763a-4b53-b3d4-b29f73138139/sist-en-iso-16032-2024)

<https://standards.iteh.ai/catalog/standards/sist/d6d32897-763a-4b53-b3d4-b29f73138139/sist-en-iso-16032-2024>



COPYRIGHT PROTECTED DOCUMENT

© ISO 2024

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

© ISO 2024 – All rights reserved

ISO 16032:2024(en)

Contents

Page

Foreword.....	iv
Introduction.....	vi
1 Scope.....	1
2 Normative references.....	1
3 Terms and definitions.....	1
4 Measurement equipment.....	4
5 Test method — General.....	4
6 Measurement procedure.....	5
6.1 General.....	5
6.2 Selection of the corner position for the microphone.....	6
6.3 Selection of the reverberant field positions of the microphone.....	6
6.4 Measurement of sound pressure levels.....	6
6.4.1 Measurement of the equivalent continuous sound pressure level.....	6
6.4.2 Measurement of the maximum sound pressure level.....	7
6.5 Averaging the sound pressure level.....	7
6.6 Determination of the background sound pressure level.....	7
6.7 Standardization or normalization of one-third-octave-band results.....	7
6.8 Calculation of A- and C-weighted values.....	8
6.9 Sound sources present in the room (additional measurements).....	8
7 Measurement of reverberation time.....	8
8 Correction for background noise.....	8
9 Precision.....	9
10 Test report.....	10
Annex A (normative) A-weighting and C-weighting correction values.....	11
Annex B (normative) Operating conditions and operating cycles for measuring the maximum sound pressure level and the equivalent continuous sound pressure level.....	12
Annex C (informative) Form for the expression of results.....	19
Bibliography.....	20

ISO 16032:2024(en)

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 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).

ISO draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). ISO takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, ISO had not received notice of (a) patent(s) which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at www.iso.org/patents. ISO shall not be held responsible for identifying any or all such patent rights.

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

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 elements 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 16032:2004), which has been technically revised.

The main changes are as follows:

- terms and definitions have been revised;
- procedure to detect and average spatial and temporal variations of the sound has been revised;
- measurements can be performed to verify sound levels either from a specific service equipment or an activity in the building, with operating conditions described in [Annex B](#) or by national guidelines if such exist for a specific type of service equipment, e.g. lifts;
- title is updated to reflect that also sound from activities in the building can be measured according to this document, e.g. music sound from a restaurant or sports premises in the same building;
- measurements are performed in one-third-octave-bands;
- octave-band levels, without corrections for reverberation times or background noise may be measured or estimated from the one-third-octave-band levels and reported optionally, but they are not used to calculate the *A*-weighted and *C*-weighted sound pressure levels;
- standardization with respect to reverberation times applies to the 50 Hz to 5 000 Hz one-third-octave-bands;
- frequency range used to calculate the *A*-weighted and *C*-weighted sound pressure levels can include one-third-octave bands from 25 Hz to 10 000 Hz but shall always include the bands 50 Hz to 5 000 Hz;
- [Annex C](#) added providing an example form for the expression of results.

ISO 16032:2024(en)

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.

iTeh Standards (<https://standards.itih.ai>) Document Preview

[SIST EN ISO 16032:2024](https://standards.itih.ai/catalog/standards/sist/d6d32897-763a-4b53-b3d4-b29f73138139/sist-en-iso-16032-2024)

<https://standards.itih.ai/catalog/standards/sist/d6d32897-763a-4b53-b3d4-b29f73138139/sist-en-iso-16032-2024>