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Acoustics - Determination of sound insulation performance of cabins - Laboratory and in situ measurements (ISO 11957:1996)

Akustik - Messung der Schalldämmung von Schallschutzkabinen - Messungen im Labor und im Einsatzfall (ISO 11957:1996)

Acoustique - Détermination des performances d'isolation acoustique des cabines - Mesurages en laboratoire et in situ (ISO 11957:1996)

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Ta slovenski standard je istoveten z: EN ISO 11957:1996

ICS:

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EUROPEAN STANDARD

EN ISO 11957

NORME EUROPÉENNE

EUROPÄISCHE NORM

December 1996

ICS 17.140.00

Descriptors: See ISO document

English version

**Acoustics - Determination of sound insulation
performance of cabins - Laboratory and in situ
measurements (ISO 11957:1996)**

Acoustique - Détermination des performances
d'isolation acoustique des cabines - Mesurages
en laboratoire et in situ (ISO 11957:1996)

Akustik - Messung der Schalldämmung von
Schallschutzkabinen - Messungen im Labor und in
Einsatzfall (ISO 11957:1996)

This European Standard was approved by CEN on 1996-11-15. 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 Central Secretariat or to any CEN member.

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CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

Foreword

The text of the International Standard ISO 11957:1996 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of an identical text or by endorsement, at the latest by June 1997, and conflicting national standards shall be withdrawn at the latest by June 1997.

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

Endorsement notice

The text of the International Standard ISO 11957:1996 was approved by CEN as a European Standard without any modification.

NOTE: Normative references to International Standards are listed in annex ZA (normative).

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Annex ZA (normative)

**Normative references to international publications
with their relevant European publications**

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN</u>	<u>Year</u>
ISO 3741	1988	Acoustics - Determination of sound power levels of noise sources - Precision methods for broad-band sources in reverberation rooms	EN 23741	1991

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**Acoustics — Determination of sound
insulation performance of cabins —
Laboratory and *in situ* measurements**

*Acoustique — Détermination des performances d'isolation acoustique des
cabines — Mesurages en laboratoire et in situ*

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Contents

	Page
1 Scope	1
2 Normative references	1
3 Definitions	1
4 Test environment and choice of suitable quantity	2
5 Instrumentation	3
6 Measurement of sound insulation performance in the laboratory..	3
6.1 General	3
6.2 Cabin location	3
6.3 Cabin mounting and conditions	3
6.4 Measurement of the sound pressure level in the room	4
6.5 Measurement of the sound pressure level inside the cabin	4
6.6 Sound pressure insulation, D_p	4
6.7 Measurement of noise inside the cabin due to noise sources forming an integral part of the cabin (internal noise level, L_{pA})	5
7 Measurement of sound insulation performance <i>in situ</i>	5
7.1 General	5
7.2 External sound field	5
7.3 Cabin mounting and conditions	6
7.4 Microphone positions in the room	6
7.5 Microphone positions inside the cabin	6
7.6 Apparent sound pressure insulation, D'_p	6
7.7 Measurement of noise inside the cabin due to noise sources forming an integral part of the cabin (internal noise level, L_{pA})	7

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8	Weighted sound pressure insulation.....	7
9	Estimated cabin noise insulation for a specific noise spectrum.....	7
10	Uncertainty.....	7
11	Information to be recorded.....	7
11.1	Test object	7
11.2	Test conditions	8
11.3	Instrumentation	8
11.4	Acoustical data	8
11.5	Further information	8
12	Information to be reported	8
Annexes		
A	Estimated cabin noise insulation for a specific noise spectrum.....	10
B	Bibliography	11

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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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 11957 was prepared by Technical Committee ISO/TC 43, *Acoustics*, Subcommittee SC 1, *Noise*, on request from CEN/TC 211, *Acoustics*.

Related standards concern noise attenuation measurements of enclosures under laboratory conditions (ISO 11546-1) and *in situ* (ISO 11546-2).

Annexes A and B of this International Standard are for information only.

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Acoustics — Determination of sound insulation performance of cabins — Laboratory and *in situ* measurements

1 Scope

This International Standard specifies a laboratory method (clause 6) and *in situ* methods (clause 7) for the determination of the sound insulation performance of sound-protecting cabins. The sound insulation performance is the reduction in sound pressure level or sound power level afforded by the cabin. The methods are applicable to cabins with a small leak ratio ($\theta \leq 2\%$).

This International Standard is applicable to a complete cabin only and not to the individual components from which it is made.

NOTE 1 Sound insulations for cabin components such as wall elements, doors, windows, silencers, etc. should be measured according to other relevant standards.

Requirements for the test environment in the laboratory are based on those given in ISO 3741.

ISO 717-1:—¹⁾, *Acoustics — Rating of sound insulation in buildings and of building elements — Part 1: Airborne sound insulation.*

ISO 3741: —²⁾, *Acoustics — Determination of sound power levels of noise sources using sound pressure — Precision methods for reverberation rooms.*

ISO 4871:1996, *Acoustics — Declaration and verification of noise emission values of machinery and equipment.*

IEC 651:1979, *Sound level meters.*

IEC 804:1985, *Integrating-averaging sound level meters.*

IEC 942:1988, *Sound calibrators.*

IEC 1260:1995, *Electroacoustics — Octave-band and fractional-octave-band filters.*

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

3 Definitions

For the purposes of this International Standard, the following definitions apply.

3.1 A-weighting: Frequency weighting in accordance with IEC 651.

3.2 cabin: An enclosure specially designed to shield human beings from environmental noise.

1) To be published. (Revision of ISO 717-1:1982)

2) To be published. (Revision of ISO 3741:1988 and ISO 3742:1988)