



SLOVENSKI STANDARD
oSIST prEN 352-6:2017
01-september-2017

Varovala sluha - Varnostne zahteve in preskušanje - 6. del: Naušniki z električnim zvočnim signalom

Hearing protectors - Safety requirements and testing - Part 6: Ear-muffs with electrical audio input

Gehörschützer - Sicherheitstechnische Anforderungen und Prüfungen - Teil 6: Kapselgehörschützer mit Kommunikationseinrichtungen

Protecteurs individuels contre le bruit - Exigences de sécurité et essais - Partie 6 : Serre-tête avec entrée audio-électrique

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Ta slovenski standard je istoveten z: prEN 352-6

ICS:

13.340.20 Varovalna oprema za glavo Head protective equipment

oSIST prEN 352-6:2017

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

DRAFT
prEN 352-6

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ICS 13.340.20

Will supersede EN 352-6:2002

English Version

Hearing protectors - Safety requirements and testing - Part 6: Ear-muffs with electrical audio input

Protecteurs individuels contre le bruit - Exigences de
sécurité et essais - Partie 6 : Serre-tête avec entrée
audio-électrique

Gehörschützer - Sicherheitstechnische Anforderungen
und Prüfungen - Teil 6: Kapselgehörschützer mit
Kommunikationseinrichtungen

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 159.

If this draft becomes a European Standard, 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.

This draft European Standard was established by CEN 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.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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

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European foreword

This document (prEN 352-6:2017) has been prepared by Technical Committee CEN/TC 159 "Hearing protectors", the secretariat of which is held by DIN.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 352-6:2002.

This document 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 Regulation(s).

For relationship with EU Regulation(s), see informative Annex ZA, which is an integral part of this document.

In comparison with the previous edition, the following technical modifications have been made:

Clause/Paragraph/Table/Figure	Change
5 Testing, Annex A and B	Removed Clause 5 Testing, Annex A and Annex B, reference to prEN 13819-3:2016 added
NOTE The technical changes referred to include the significant technical changes from the EN revised but is not an exhaustive list of all modifications from the previous edition.	

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Introduction

Earmuffs with safety-related audio input are designed to provide speech information and warning signals, while providing attenuation of external sound. They may be selected for use in a number of different environments, for example in air traffic communication, in the police forces, in the broadcasting and entertainment industries.

The requirements of the standard are concerned primarily with the safety-related audio input performance of the earmuffs.

EN 352-6 is part of a family of standards describing product requirements:

- EN 352-1, *Hearing protectors — General requirements — Part 1: Earmuffs*
- EN 352-2, *Hearing protectors — General requirements — Part 2: Earplugs*
- EN 352-3, *Hearing protectors — General requirements — Part 3: Earmuffs attached to head protection and/or face protection devices*
- EN 352-4, *Hearing protectors — Safety requirements and testing — Part 4: Level-dependent earmuffs*
- EN 352-5, *Hearing protectors — Safety requirements and testing — Part 5: Active noise reduction earmuffs*
- EN 352-6, *Hearing protectors — Safety requirements and testing — Part 6: Earmuffs with safety-related audio input*
- EN 352-7, *Hearing protectors — Safety requirements and testing — Part 7: Level-dependent earplugs*
- EN 352-8, *Hearing protectors — Safety requirements and testing — Part 8: Entertainment audio earmuffs*
- prEN 352-9, *Hearing protectors — Safety requirements and testing — Part 9: Earplugs with safety-related audio input*
- prEN 352-10, *Hearing protectors — Safety requirements and testing — Part 10: Earplugs with entertainment audio input*

Test methods for these requirements are described in the following standards:

- EN 13819-1, *Hearing protectors — Testing — Part 1: Physical test methods*
- EN 13819-2, *Hearing protectors — Testing — Part 2: Acoustic test methods*
- prEN 13819-3, *Hearing protectors — Testing — Part 3: Supplementary acoustic test methods*

An associated standard EN 458 covers selection, use, care and maintenance of hearing protection.

Sound output levels and criterion input signals are reported in the user information.

1 Scope

This European Standard is applicable to earmuffs supplemented by a safety-related audio input. It specifies requirements on construction, design, performance, marking and user information related to the inclusion of the safety-related audio input.

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.

EN 352-1, *Hearing protectors — General requirements — Part 1: Ear-Muffs*

EN 352-3, *Hearing protectors — General requirements — Part 3: Ear-muffs attached to an industrial safety helmet*

prEN 13819-3:2016, *Hearing protectors — Testing — Part 3: Supplementary acoustic test methods*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 352-1, EN 352-3 and the following apply.

3.1

sound output level

A-weighted diffuse-field related sound pressure level produced by the audio input facility of an earmuff for a given input signal

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3.2

criterion input signal

mean input signal minus one standard deviation for which the sound output level is equal to 82 dB(A)

4 Requirements

4.1 General

Earmuffs with safety-related audio input shall meet the requirements of EN 352-1 (or EN 352-3, as appropriate) and the requirements listed in 4.2.

4.2 Sound output levels and criterion input signal

The sound output level of the earmuffs with safety-related audio input shall be measured in accordance with prEN 13819-3:2016, 7.5.1.2 part 1 and part 2. For earmuffs with Bluetooth audio input, the sound output level shall be measured according to prEN 13819-3:2016, 7.4.1.1 part 1 and part 2.

The criterion input signal for earmuffs with electrical audio input shall be calculated according to prEN 13819-3:2016, 7.5.1.3 part 1 and for earmuffs with Bluetooth audio input according to prEN 13819-3:2016, 7.4.1.2 part.

Sound output levels and criterion input signals shall be reported in the user information.

5 Marking

There are no requirements for marking in addition to what is given in EN 352-1 or EN 352-3.

prEN 352-6:2017 (E)**6 Information supplied by the manufacturer****6.1 General**

Information according with 6.2 shall be provided at least in the official language(s) of the European state of destination.

6.2 User information

The following information for the user (in addition to that required by EN 352-1 or EN 352-3) shall be supplied with the earmuffs:

- a) the number of this standard, EN 352-6;
- b) an indication that the hearing protector provides safety-related audio input;
- c) criterion input signal
- d) dependence between sound output level and input signal in 5 dB steps from a sound output level of 70 dB(A) up to the maximum input signal;
- e) sound output level for maximum input signal;
- f) usage time for the maximum input signal that corresponds to an equivalent sound output level of 82 dB(A) over 8 h;
- g) a method for checking, charging and changing batteries, if applicable;
- h) statements that include the following information:
 - 1) The earmuff is provided with safety-related audio input. The user should check correct operation before use. If distortion or failure is detected, the user should refer to the manufacturer's advice for maintenance and replacement of the battery.
 - 2) A warning that the output of the audio circuit of this hearing protector may exceed the exposure limit level.
 - 3) A warning that this product may not be used for entertainment since the output level is not limited to the necessary innocuous level

NOTE Further guidance on how to use the information in c) and d) can be found in EN 458:2016, 6.2.3.5 and Annex E.

6.3 Additional information

The following information shall be available from the manufacturer on request:

- a) results of tests performed in accordance with this standard;
- b) the name and country of the test laboratory which performed the tests specified and the date of the tests.

Annex ZA (informative)

Relationship between this European Standard and the essential requirements of Regulation (EU) 2016/425 of the European Parliament and of the Council of 9 March 2016 on personal protective equipment aimed to be covered

This European Standard has been prepared under a Commission's standardization request to provide one voluntary means of conforming to essential requirements of Regulation (EU) 2016/425 of the European Parliament and of the Council of 9 March 2016 on personal protective equipment.

Once this standard is cited in the Official Journal of the European Union under that Regulation (EU) 2016/425, compliance with the normative clauses of this standard given in Table ZA.1 confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding essential requirements of that Regulation (EU) 2016/425 and associated EFTA regulations.

Table ZA.1 — Correspondence between this European Standard and Regulation (EU) 2016/425

Essential Requirements of Regulation (EU) 2016/425	Clause(s)/subclause(s) of this EN	Remarks/Notes
1.1.1 Ergonomics	4	
1.1.2.1 Optimum level of protection	4.2	
1.4 Manufacturer's instructions and information	6.2	336-97d0-
3.5 Protection against the harmful effects of noise	4	

WARNING 1 — Presumption of conformity stays valid only as long as a reference to this European Standard is maintained in the list published in the Official Journal of the European Union. Users of this standard should consult frequently the latest list published in the Official Journal of the European Union.

WARNING 2 — Other Union legislation may be applicable to the product(s) falling within the scope of this standard.