

**Kuulmiskaitsevahendid. Ohutusnõuded ja
katsetamine. Osa 8: Meelelahutuslike
audioseadmete kõrvaklapid**

Hearing protectors - Safety requirements and testing -
Part 8: Entertainment audio ear-muffs

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 352-8:2008 sisaldab Euroopa standardi EN 352-8:2008 ingliskeelset teksti.

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English Version

Hearing protectors - Safety requirements and testing - Part 8: Entertainment audio ear-muffs

Protecteurs individuels contre le bruit - Exigences de
sécurité et essais - Partie 8 : Serre-tête audio de
divertissement

Gehörschützer - Sicherheitstechnische Anforderungen und
Prüfungen - Teil 8: Audiokapselgehörschützer für
Unterhaltungszwecke

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Foreword

This document (EN 352-8:2008) has been prepared by Technical Committee CEN/TC 159 "Hearing protectors", the secretariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by October 2008, and conflicting national standards shall be withdrawn at the latest by October 2008.

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 Directive(s).

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

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Introduction

This European Standard "Hearing Protectors – Safety requirements and testing – Part 8: Entertainment audio ear-muffs", specifies procedures for the testing of personal hearing protection devices in relation to Directive 89/686/EEC - Personal Protective Equipment. Entertainment audio ear-muffs provide hearing protection for the user but also provide a music or speech signal for entertainment purposes rather than for audio communications associated with the work duties of the wearer.

EN 352-1 deals with requirements for ear-muffs, EN 352-2 with ear-plugs, EN 352-3 with ear-muffs attached to industrial safety helmets. EN 13819 parts 1 and 2 deal with testing plans common to all types of hearing protectors covered by this series of European Standards.

Additional safety requirements and the associated test procedures for level-dependent ear-muffs are contained in EN 352-4, for active noise reduction ear-muffs in EN 352-5, for ear-muffs with safety-related electrical audio input in EN 352-6 and for level-dependent ear-plugs in EN 352-7. An associated standard EN 458 [2] covers selection, use, care and maintenance of hearing protection.

The particular requirement for hearing protectors in relation to their ability to reduce noise to below daily limit levels set by Directive 2003/10/EC "on the protection of workers from the risks related to exposure to noise at work" is addressed in the standard by means of a limitation of that sound pressure level effective to the ear which is generated by the entertainment audio equipment of the ear-muff. This limitation is to be tested and reported at full volume setting. The sound pressure level limit for the reproduced sound of the audio entertainment is limited to 82 dB(A). Completion of the information given on entertainment audio ear-muffs by the passive attenuation data reported within EN 352-1, which is required by this standard, enables the user to fulfil the particular requirement on daily limit levels set by Directive 2003/10/EC.

Entertainment audio ear-muffs are designed to provide not only sound attenuation to ambient sound but also to provide entertainment audio via built-in loudspeakers. The entertainment audio signal can be transmitted by radio (broadcast or local plant programmes) or by wire or other communication. The audio signal transmission is for entertainment and not for safety or work-related purposes.

This part of the standard is a specification intended for type approval purposes, for which four sets of specimen ear-muffs are tested (further samples may be required for testing under EN 352-1 or EN 352-3, as appropriate).

The requirements and tests of the standard are concerned primarily with the entertainment audio performance of the ear-muffs. The standard may be applied to ear-muffs for fitting to industrial safety helmets.

1 Scope

This part of the Standard is concerned with entertainment audio ear-muffs. It specifies constructional and design and performance requirements, methods of test, marking requirements and user information relating to the incorporation of the entertainment audio facility.

The requirements of this standard are intended to take account of the ergonomic interaction between the wearer, the device and, where possible, the working environment in which the device is likely to be used (see Annex ZA of this standard and EN 458 [2]).

2 Normative references

The following referenced documents are indispensable for the application of this European Standard. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 352-1:2002, *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*

EN 352-6:2002, *Hearing protectors - Safety requirements and testing - Part 6: Ear-muffs with electrical audio input*

EN 13819-1, *Hearing protectors — Testing — Part 1: Physical test methods*

EN 13819-2, *Hearing protectors — Testing — Part 2: Acoustic test methods*

EN ISO 11904-1:2002, *Acoustics — Determination of sound immission from sound sources placed close to the ear — Part 1: Technique using a microphone in a real ear (MIRE technique) (ISO 11904-1:2002)*

3 Terms and definitions

For the purposes of this Standard, the terms and definitions given in EN 352-1:2002 or EN 352-6:2002, as appropriate, together with the following apply.

3.1

diffuse field related sound pressure level

sound pressure level of a diffuse sound field which will give rise to the measured ear canal sound pressure level, when a subject is exposed to a diffuse field (EN ISO 11904-1:2002, Clause 3.6)

NOTE Ear canal sound pressure level is the equivalent continuous sound pressure level measured at the ear canal measurement position (EN ISO 11904-1:2002, Clause 3.2). Ear canal measurement position is the position in the ear canal where the sound pressure is measured (EN ISO 11904-1:2002, Clause 3.1).

3.2

entertainment audio ear-muffs

ear-muffs additionally providing reproduced sound for entertainment purposes

NOTE They may be designed with an electrical audio input or with built-in broadcast receivers. Or they may be part of a complete system composed of transmitters and receiving audio ear-muffs.