

Hearing Protection – Standards, Risk Assessment & Guidance

MJ Scannell Safety | RG Ireland

Exposure to high noise levels can cause permanent hearing damage. To select the correct hearing protection, a risk assessment should first be carried out so that the chosen device complements the working environment. MJ Scannell Safety | RG Ireland offers a wide range of professional hearing protection solutions. This document outlines current European standards, classifications, and guidance for hearing protection.

Risk Assessment

Risk assessment involves identifying noise hazards in the workplace, including continuous high decibel exposure, intermittent loud noises, and impulse noise. Modern hearing protection devices (HPDs) may include features such as:

- Earplugs (disposable, reusable, or custom-moulded)
- Earmuffs with adjustable headbands
- Electronic noise-cancelling or attenuating devices
- High attenuation levels for impulse or continuous noise
- Compatibility with helmets, face shields, and other PPE

Correct selection should consider the noise level (dB), frequency, duration of exposure, comfort, and user compliance.

Care and Maintenance

Proper care ensures maximum protection and hygiene

- Clean earmuffs and earplugs according to manufacturer instructions.
- Replace disposable earplugs after each use; check reusable earplugs for wear.
- Store devices in a clean, dry area, away from dust and sunlight.
- Inspect regularly for cracks, loose parts, or degraded cushioning.
- Replace devices that no longer provide proper seal or attenuation.

Proper use, storage, and environmental conditions significantly affect service life and protective performance.

Hearing Protection Standards (European PPE)

Professional Use	Standard	Description
General Industrial HPDs	EN 352-1:2022	• Earmuffs providing protection against continuous noise; includes attenuation requirements and fit testing
Earplugs	EN 352-2:2022	• Insertion-type earplugs; specifies noise reduction rating, comfort, and hygiene requirements
Level-dependent / Electronic HPDs	EN 352-6:2022	• Electronic earplugs or earmuffs that attenuate harmful noise while allowing speech and warning signals to be heard

Communication Headsets	EN 352-8:2022	Combines hearing protection with communication devices; must meet attenuation and audio clarity requirements
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Hearing Protection Classification – EN 352

Class / Marking	Protection Features	Notes
EN 352-1	Earmuffs; continuous noise attenuation	Standard industrial earmuffs
EN 352 2	Earplugs; insertion-type noise attenuation	Can be disposable, reusable, or custom-moulded
EN 352-6	Level-dependent / electronic earplugs	Attenuates harmful noise but allows speech/warning signals
EN 352 8	Communication headsets	Hearing protection combined with communication functionality

Additional Protection Markings

Symbol	Meaning
SNR	Single Number Rating – overall attenuation
H, M, L	Frequency-specific attenuation: High, Medium, Low
CE	Certified to relevant EN standard

Risk Considerations

Even certified hearing protection reduces the risk of hearing loss but does not eliminate it. Always combine hearing protection with:

- Safe working practices in high-noise areas
- Regular noise monitoring and risk assessments
- Use of additional PPE where necessary (helmets, face shields)

Hearing Protection Sizing / Fit (Guidance Only)

Device Type	Size / Fit Guidance
Earmuffs	Adjustable headband; must fully enclose ears
Earplugs	Follow manufacturer instructions; proper insertion ensures full attenuation
Custom-moulded Earplugs	Fit to individual ear canal; replace every 12–18 months or as recommended