

# Selecting Hearing Protection

Any environment that has noise levels exceeding 85dB requires hearing protection to be worn.

## What does SLC80 mean?

Under AS/NZS1270 hearing protection is tested and an SLC80 rating is allocated to the product. The SLC80 rating is defined as the difference between the sound level of the environment in which the hearing protection device is worn and the sound level reaching the individual wearing the product.

Determined by the SLC80 rating, a class rating from 1-5 is assigned.

	Noise Level dB (A)	SLC80 Range (dB)
<b>Class 1</b>	Less than 90	10 to 13
<b>Class 2</b>	90 to less than 95	14 to 17
<b>Class 3</b>	95 to less than 100	18 to 21
<b>Class 4</b>	100 to less than 105	22 to 25
<b>Class 5</b>	105 to less than 110	26 or greater

*\*All calculations based on the maximum exposure limit of 85dB for 8 hours*

### Example for selecting a class for earmuffs

100dB – 80dB = 20dB (which falls into the Class 3 category)

## Noise exposure guidelines

For every 3dB over 85dB, the allowable exposure time before impairment can occur is halved.

Continuous dB	Permissible Exposure Time
85dB	8 Hours
88dB	4 Hours
91dB	2 Hours
94dB	1 Hours
97dB	30 Minutes
100dB	15 Minutes
103dB	7.5 Minutes
106dB	3.75 Minutes
109dB	1.875 Minutes
112dB	0.9375 Minutes
115dB	0.46875 Minutes

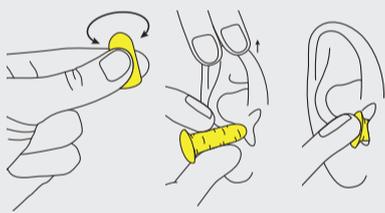
*For areas exceeding 110dB please seek specialist assistance. It is important to select and correctly fit appropriate hearing protection.*



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## How To Fit Earplugs

Wash your hands thoroughly before handling earplugs. Check your earplugs before using, if your foam earplugs are damaged, worn or dirty, discard them immediately. Dirty single use earplugs can cause health issues such as ear infections if used. If you have silicone (reusable) earplugs, they can be washed with mild soap and water and will last for up to three weeks.

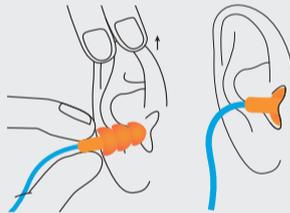


### Single Use Disposable Foam Earplugs

Roll the earplug between your thumb and index finger until it is a narrow cylinder.

Hold your ear back with the opposite hand to maximise the opening of your ear. Gently insert the tapered end of the earplug into the ear canal, until it is level with the external ridges of your ear.

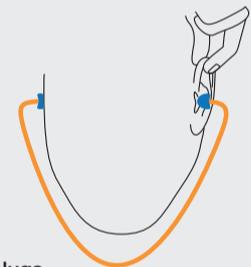
Hold for 30 – 60 seconds until you feel the earplug expand to seal the ear canal, release then push a little further to ensure fit.



### Reusable Silicone Earplugs

Hold your ear back with the opposite hand to maximise the opening of your ear. Gently insert the tapered end of the earplug into the ear canal until it is level with the external ridges of the ear.

Insert the earplug gently until all the ripples are inside your ear canal, the tip of the earplug should just be visible when looking at your face in a mirror.



### Banded Earplugs

Position the head band under your chin or behind your head. Use your hands to press the earplugs into each ear canal.

Hold your ear back with the opposite hand to maximise the opening of your ear and push the earplug in further for optimum performance.

If you are in a noisy environment, lightly push each earplug further into your ear for a significant lowering of the noise level.

## Audiometric Testing Process

According to Work Health and Safety Regulations, a Person Conducting a Business or Undertaking (PCBU) must provide an audiometric test within 3 months of a worker commencing work that exposes them to a risk of noise induced hearing loss in their workplace. At least every two years a follow up test must be conducted. Follow the steps below to conduct an Audiometric Test for your workplace.

- **Conduct a site noise survey** – Measure the noise levels and assess the risk of noise on your site. If this results in average noise levels over 85dB for an 8-hour period, a detailed assessment is required.
- **Detailed Noise Assessment** – This assessment should be conducted by a professionally trained occupational hygienist or occupational health nurse. The assessment covers:
  - The amount of noise workers are exposed to
  - Identifying noise sources
  - Providing noise control strategies
  - Recommending appropriate hearing protection
- **Hierarchy of Risk Control** - choose the control measure that most effectively eliminates or minimises the risk in the circumstances
  - **Eliminate** – eliminate the source of noise completely
  - **Minimise** – move the source of noise away from employees
  - Provide hearing protectors or use enclosures to reduce the amount of noise emitted
- Issuing hearing protectors to individuals and validation of the fit to the individual user
- Cleaning and maintenance of hearing protectors
- Training and education for people wearing hearing protectors
- **Monitoring** – The hearing of workers exposed to noise can be monitored through regular audiometric examinations. Audiometric testing is an important part of managing the risks from noise exposure at the workplace. An occupational hygienist or specially trained occupational health nurse should be conducting tests:
  - Before an employee starts work
  - At intervals of no longer than 12 months thereafter
  - When Employees exit a business

More frequent audiometric testing (e.g. every six months) may be needed if exposures are at a high LAeq, 8h, which is equal or greater than 100 dB(A)

- If hearing protection is being used as a control, you must consider:
- Providing a selection of hearing protectors (not one will fit all. Fit testing recommended to ascertain correct style for each employee)