PORTWEST®

Hearing Protection Range

USA Standards

ANSI (US American National Standards Institute) S3.19 - 1974

This standard specifies the test method for determining the level of noise attenuation (NRR Noise Reduction Rating) of the hearing protection, as recommended by the EPA (U.S. Environmental Protection Agency) and in accordance with the Occupational Safety & Health Administration(OSHA).

Noise Reduction Rating (NRR)

This is a unit of measurement used to determine the effectiveness of hearing protection devices to decrease sound exposure within a given working environment. Classified by their potential to reduce noise in decibels (dB).

Excessive noise is generally defined as exposure to 85 or more decibels of sound over an 8 hour period. According to OSHA, hearing protection is required for all employees at this degree of exposure. In all cases where the sound levels exceed the values shown below, a continuing, effective hearing conservation program should be implemented. Example: if a worker is exposed to 100dB in a 2 hour period, he is also required to wear hearing protection.

European Standards

EN 352-1: 2002 Hearing Protectors - Ear Muffs
EN 352-2: 2002 Hearing Protectors - Ear Plugs
EN 352-3: 2002 Hearing Protectors - Hard Hat Mounted Ear Muffs
EN 352-4: 2002 Hearing Protectors - Level Dependent Ear Muffs
EN 352-8: 2002 Earmuffs with Entertainment Radio

All these standards establish requirements with regards to the manufacture, design, performances and test methods.

SNR (Simplified Noise Reduction): Single average value of attenuation.
HML : Attenuation values expressed in terms of average levels of frequencies.
H : Attenuation of PPE at high frequencies (pitched noises).
M : Attenuation of PPE at medium frequencies.
L : Attenuation of PPE at low frequencies (bass sounds).

OSHA'S Permissible Noise Exposures	
Duration per day, hours	Sound level dBA slow response
8	90
6	92
4	95
2	100
1	105
0.5	110
<0.25	115

Minimum requirements for the protection of workers against the risks related to noise exposure		
8 hours exposure time at or above **85dB**	**8 hours** exposure time at or above **80dB**	**8 hours** exposure time between **75 dB** and **80 dB**
Obligatory hearing protection	Hearing protectors available to the worker	Hearing protection recommended

Requirements Directive 2003/10/EC:

The performance of the hearing protector (its attenuation level) must be adapted to the risk assessment of the workplace.

It should bring the noise level to a level that is not harmful to health, while avoiding over-protection which would cut the operator from his environment (warnings, communication, etc).