HEARING PROTECTION GUIDE

The Law
Employers are required to comply with the Control of Noise at Work Regulations 2005 which aim to ensure that employees’ hearing is protected from excessive noise at their place of work. The HSE guidance states that the hierarchy of control should begin with reducing noise through engineering means and other controls (e.g. segregation of activities). Where hazardous levels of noise remain present, Hearing Protective Equipment (HPE) may be used to further reduce exposure. Where average noise levels are 80 decibels (dB) or above, an employer is required to assess the risk to employees, make hearing protection available and provide their employees with relevant information and training. 3M™ HPE which provides low attenuation is identified by green and yellow coloured symbols.

At 85dB and above the provision of suitable HPE is mandatory. When HPE is worn, employees must not be exposed to noise above 87dB. 3M™ HPE which provides medium-high attenuation is identified by red symbols. For more information visit www.hse.gov.uk/noise

What to look for
The attenuation table supplied with each hearing protector provides the assumed protection at different frequencies. They also feature H, M and L values which stand for High, Medium and Low and relate to how the equipment performs at high, medium and low frequencies. They will also have a Single Number Rating (SNR) which provides an indication of the performance averaged over the full frequency range. The attenuation of HPE selected must be high enough to reduce exposure to noise to acceptable levels but not so high that the wearer becomes isolated and unable to communicate or hear warnings.

Rule of Thumb
When it’s necessary to raise your voice to have a conversation when 2m apart, the noise level is likely to be 85dB or above.

Safety Standards Symbols

<table>
<thead>
<tr>
<th>SNR (Single Number Rating)</th>
<th>Target noise in the ear = 75dB to 80dB. Noise level = 100dB. SNR value of product = 25dB. In the ear noise = 75dB. Target met. 4</th>
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<td>SNR 25</td>
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Identifying noise hazards and assessing noise levels in the workplace is the first step towards ensuring your workforce is protected.

Assess your needs
The HSE website contains good information on assessing risk. See www.hse.gov.uk/noise/risks.htm. When a noise survey is required, it must be carried out by a competent person such as a noise consultant or specialist. In-house measurement may be undertaken by appropriately trained and experienced staff using the 3M range of reliable sound level meters and associated software.

HOW THE WORKPLACE CAN AFFECT YOUR HEARING

- Pin falling on floor
- Soft whisper
- Conversation
- Lawnmowing
- Riveting
- Jet take off

Threshold of hearing
- Daily exposure causes slight hearing loss
- Hearing protectors suggested
- Daily exposure causes moderate to severe loss
- Hearing protectors required

Pain Threshold
- Brief exposure can cause permanent loss
- Short exposure causes moderate to severe loss
- Wear hearing protectors with extra care

Note that sound energy doubles every 3dB; For example, 30dB has twice as much energy as 27dB.