

**uvex**

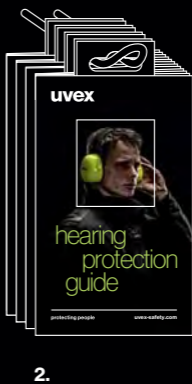


hearing  
protection  
guide

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protecting people

[uvex-safety.com](http://uvex-safety.com)



**uvex**



# uvex hearing protection guide

## How to choose the correct hearing protection.

The appropriate form of hearing protection varies according to the wearer's ear and the area of application. This guide contains information regarding noise and hearing protection.



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## What actually is noise?

Noise is not only loud sounds which damage hearing; sounds perceived as disruptive and burdensome are also noise.

For example, a clock ticking or a dripping tap may impair our concentration.



## Effects of noise on hearing and the human body

Our hearing is on permanent standby. It can never take a break and cannot be "switched off".

This means that our bodies are exposed to the full spectrum of noise every day. This might be noise at work, traffic noise or when attending a concert in our free time. Our hearing is under constant strain.

But it is not just our hearing that is affected. Noise also results in stress which affects the whole body.

Subconsciously, noise affects the entire human organism. This can lead to headaches and gastrointestinal illnesses, or even high blood pressure and noise-induced hearing loss.



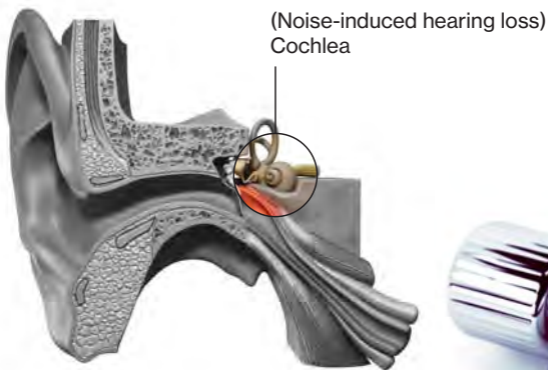
## Noise-induced hearing loss

We are exposed to noise every day, which is damaging to our hearing.

Hearing loss develops gradually and painlessly.

Sensory hair cells in the cochlea are irreparably damaged over time.

The first signs of hearing loss can often be noticed in noisy environments. Those with impaired hearing will find it difficult to properly follow conversations in such situations. They may need to ask for things to be repeated more often, they might constantly turn the radio up and they might find that telephone calls lead to misunderstandings. Social withdrawal is often an effect of hearing loss.





## Adverse health effects of harmful noise

Listed below are the maximum periods of time a person should be exposed to harmful noise per day without wearing hearing protection.

85 dB	<b>8 hours</b>	106 dB	<b>4 minutes</b>
88 dB	<b>4 hours</b>	109 dB	<b>2 minutes</b>
91 dB	<b>2 hours</b>	112 dB	<b>1 minute</b>
94 dB	<b>1 hour</b>	115 dB	<b>30 seconds</b>
97 dB	<b>30 minutes</b>		
100 dB	<b>15 minutes</b>		
103 dB	<b>7.5 minutes</b>		

Download the free  
iOS uvex Dezibel app  
to measure the  
ambient noise level



# Protect your hearing!

Use uvex hearing protection to protect your hearing from the impact of harmful noise in the workplace.

## Earplugs for every situation

It is essential to have effective acoustic insulation to protect hearing in noisy environments. With the right insulation, harmful or irritating noise can be isolated, while important alarm signals are still audible and speech perception is not adversely affected – you don't feel isolated.

## It's all about the correct choice

- **Wearing period**
- **Noise situation**
- **Precision fit (people with beards or glasses)**
- **Efficacy (insulating earpiece pads)**
- **Ease of use**
- **Compatibility with other PPE**
- **Individually adaptable hearing protection**



60 dB

70 dB



80 dB



90 dB

## What should you know about noise insulation with regard to ear plugs?

SNR is an abbreviation of single number rating. The SNR value represents the absorption figure of a product. The higher the SNR value of a hearing protection product, the higher the noise insulation provided.

## What level of noise insulation is required?

To find out the absorption figure required, the noise situation of the workplace must first be established. For this, the professional association should measure noise emissions to determine the equivalent continuous noise level and, where appropriate, the maximum noise level reached. A noise register is established on the basis of this. Then, the appropriate hearing protection can be selected in accordance with the SNR method.



# SNR method

Noise level – absorption figure = residual noise level

(SNR) of the relevant  
hearing protection

Example:

$$100 \text{ dB} - 26 \text{ dB} = 74 \text{ dB}$$

The objective when choosing suitable hearing protection is to achieve an effective residual noise level of between 70 dB and 80 dB for the wearer.

If sound absorption is too high (over-protection), this can result in an inability to communicate and cause feelings of isolation.



## Every ear is different

Ear canals vary in size and shape. This means an earplug which fits properly is required.

For this reason, uvex offers a number of forms of hearing protection, appropriate for the many different shapes and sizes of ear canals. Or you can even choose individually adapted otoplastastic hearing protection.



auf EIN



## Long wearing periods – comfort is key!

Comfort is essential if you rely on hearing protection at work for most of the day.

When we develop our products, we place great importance on ergonomics and optimal fit in the ear canal.

Individually adaptable otoplastic hearing protection offers maximum comfort.







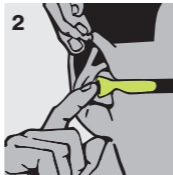
## Fitting and correct usage of disposable earplugs

Hearing protection must be inserted correctly in order to ensure the protective function.

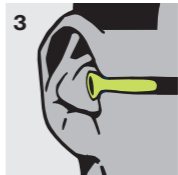
If protection is not used correctly, there will be minimal, if any, protective effect. Read the instructions for use carefully to make sure that the hearing protection is correctly fitted.



**1**  
Briefly roll and compress the earplug



**2**  
With one arm, reach over the head and pull the ear slightly upwards, so that the ear canal is straight. Place the earplug in the ear and hold it in place for a short time



**3**  
Perfect fit



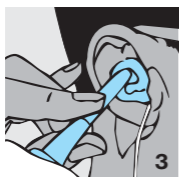
# Fitting and correct usage of otoplastic hearing protection



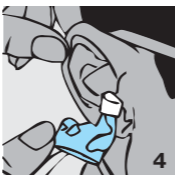
An otoscopy is carried out to inspect the ear canal.



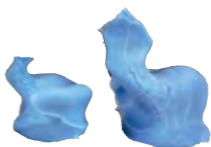
Next, an otoplast is inserted to protect the inner ear.



After this, silicone impression material is inserted slowly into the ear canal and the surrounding area of the outer ear.



The ear impression can be removed after a few minutes.





Hold the otoplastic device by its grip. The part which inserts into the ear should point downwards.



Position the otoplastic device at the entry to the ear canal. With your other hand, reach over your head and pull the ear slightly upwards.











Gently rotate the otoplastic device backward when inserting it into the ear canal.



Please make sure that the otoplastic device is inserted comfortably.



## uvex disposable earplugs

<p><b>uvex com4-fit</b> 2112.004</p> 	<p><b>uvex x-fit</b> 2112.001</p> 	<p><b>uvex xtra-fit</b> 2112.060</p> 	<p><b>uvex hi-com</b> 2112.100</p> 
<p>SNR</p> <p><b>33 dB</b></p>  <p>Signal recognition</p>	<p><b>37 dB</b></p> 	<p><b>36 dB</b></p> 	<p><b>24 dB</b></p> 
<p><b>S, V, W, E<sub>1</sub></b></p>	<p><b>S, V, W, E<sub>1</sub></b></p>	<p><b>S, V, W, E<sub>1</sub></b></p>	<p><b>W</b></p>

## Other products

<p>with cord</p>	<p>with cord detectable</p>		<p>with cord detectable</p>
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uvex reusable earplugs

**uvex  
xact-fit**  
2124.001



**uvex  
whisper**  
2111.201



**uvex  
whisper+**  
2111.212



**uvex  
whisper  
supreme**  
2111.235



**26 dB**



**23 dB**



**27 dB**



**30 dB**



**W**

**S, W**


**S, V, W, E<sub>1</sub>**

**W**

detectable  
banded ear  
protectors

detectable

## uvex earmuffs

<p><b>uvex K1</b> 2600.001</p>  <p>SNR</p>	<p><b>uvex K2</b> 2600.002</p> 	<p><b>uvex K3</b> 2600.003</p> 	<p><b>uvex K4</b> 2600.004</p> 
<p><b>28 dB</b></p> <p>length adjustment</p> <p>padded headband</p>	<p><b>32 dB</b></p> <p>length adjustment</p> <p>padded headband</p> <p>memory foam</p>	<p><b>33 dB</b></p> <p>length adjustment</p> <p>padded headband</p> <p>memory foam</p>	<p><b>35 dB</b></p> <p>suitable for loud noise levels</p> <p>hi-viz design for visual recognizability</p> <p>length adjustment</p> <p>padded headband</p> <p>memory foam</p>

## uvex K200

2600.200



## uvex K1H

2600.201



## uvex K2H

2600.202



**28 dB**

length  
adjustment

optimum fit  
360° rotation

dielectric

Option:

compatible  
with bump cap

**27 dB**

length  
adjustment

standby and  
resting  
positions

optimal helmet-  
visor  
combination

**30 dB**





length  
adjustment

standby and  
resting  
positions

optimal helmet-  
visor  
combination

A variant  
compatible  
with the uvex  
pheos helmet  
is available

# uvex tailor-made hearing protection

<p><b>uvex high-fit u-cut HC</b></p>  <p>SNR</p>	<p><b>uvex high-fit flex</b></p> 	<p><b>uvex high-fit temp flex</b></p> 	<p><b>uvex high-fit duro</b></p> 
<p><b>20 dB</b> <b>26 dB</b></p> <p>Signal recognition</p>	<p><b>23 dB</b> <b>26 dB</b> <b>28 dB</b></p>	<p><b>24 dB</b> <b>28 dB</b></p>	<p><b>24 dB</b> <b>28 dB</b> <b>32 dB</b></p>
<p><b>20 dB: –</b> <b>26 dB: S, W, E<sub>2</sub></b></p>	<p><b>23 dB: –</b> <b>26 dB: S, W, E<sub>2</sub></b> <b>26 dB: S, W, E<sub>1</sub></b>  detectable</p>	<p><b>24 dB: –</b> <b>28 dB: S, W, E<sub>2</sub></b></p>	<p><b>24 dB: –</b> <b>28 dB: –</b> <b>32 dB: S, W, V, E<sub>1</sub></b>  detectable</p>



**uvex  
high-fit  
flex com**



**uvex  
high-fit  
flex for  
Impulse**



**uvex  
ILC**



**uvex  
etyBlu**



**23 dB  
26 dB**

Can be adapted to the uvex ILC and etyBlu communication units

**28 dB**

**23 dB: W  
26 dB: S, W,  
V, E<sub>1</sub>**

detectable

**28 dB: S, W**





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