



Be smart –
wear Phonak

Smart hearing protection
for smart people

A Sonova brand

PHONAK

Introducing Phonak
Serenity Choice™ Pro –
the new passive hearing
protection solution for
industry, from the
hearing care specialist.



Be smart –
wear Phonak



How do we know a sound level is safe?

The World Health Organization (WHO) and the U.S. Environmental Protection Agency (EPA) recommend maintaining environmental noises below 70 dBA over 24 hours (75 dBA over 8 hours) to prevent noise induced hearing loss.¹

Directive 2003/10/EC of the European Parliament and of the Council of 6 February 2003 on the minimum health and safety requirements regarding the exposure of workers to the risks arising from physical agents (noise):

Action level EC ²	Daily exposure level LEX, 8h	Peak sound pressure level LC, peak
First action level (minimum) to provide protection	80 dB(A)	135 dB(C)
Second action level: mandatory protection	85 dB(A)	137 dB(C)



Accepted exposure level for 8 hours	+	SNR	=	Exposure value without protection for 8 hours
85 dB		25		110

Noise sources ¹	Noise level in dB	Health effects ²
Jet plane take off, firecracker, gun shot	140	Pain and ear injury
Percussion section at symphony, air raid, jackhammer, power drill	130	
Ambulance siren, pneumatic drill, chain saw	120	
Leaf blower, power saw	110	Hearing loss possible in less than 2–5 minutes
Motorcycle at 50 km/h, wood working, factory machinery	100	Hearing loss possible after 15 minutes
Heavy goods vehicle at 50 km/h, tractor	90	Damage to hearing possible after about 50 minutes of exposure
Handsaw, heavy traffic, noisy restaurant	85	Damage to hearing possible after 2 hours of exposure
Manual machine tools, computer printing room	80	Cardiovascular effects
Flush toilet, coffee grinder	75	
TV audio	70	Sleep disturbances
Alarm clock, electric shaver	65	Stress, annoyance
Call centers, offices, air conditioner, sewing machine	60	Sounds at these dB levels typically don't cause any hearing damage.
Electric toothbrush	55	
Refrigerator	50	
Quiet residential area, library	40	
Soft whisper	30	
Ticking watch	20	

6 ¹ https://www.cdc.gov/nceh/hearing_loss/what_noises_cause_hearing_loss.html
² DIRECTIVE 2003/10/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 6 February 2003

Performance
counts



Phonak Serenity Choice™ Pro

highlights at a glance



Phonak Serenity Choice™ Pro
Custom, full concha, exchangeable
filter, lanyard



Phonak Serenity Choice™ Pro,
generic ear tip, exchangeable
filter, lanyard

Attenuates noise and loud sounds effectively

Phonak Serenity Choice™ Pro significantly reduces noise and loud sounds, allowing you to work safely in noisy environments¹.

Allows close communication

Phonak Serenity Choice™ Pro keeps relevant sound and speech, and so allows situational awareness and communication¹.

Lets the ear breathe

Phonak Serenity Choice™ Pro lets the ear breathe by ventilating the ear to prevent a build up of excess moisture².

¹ IFA/DGUV Bescheinigung 21.11.2020, Serenity Choice Pro KI 25 (W X S V E.)

² Tested at Sonova laboratories, with ear tip and filter or completely sealed ear tip. Humidity was measured in the ear under different lab conditions. The test results are valid for generic as well as custom products

Phonak Serenity Choice™ Pro

performance overview

Phonak Serenity Choice™ Pro is available in different form factors and with different filters:

Custom made earpieces to provide the safest level of attenuation, and the comfort needed to wear the hearing protection 8 hours a day for years. The earpieces are available in two sizes and in two different materials, with a variety of colors.

Phonak Serenity Choice™ Pro KI 20			
	Generic	Custom acrylic	Custom silicone
			
			
Shell colors		   	      
SNR	22	26	22
H	22	27	23
M	20	24	20
L	18	21	19
NRR	14	19	16
Metal detection			

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Generic ear tips for occasional use, e.g. temporary work forces, with the same filter technology as the custom made products.

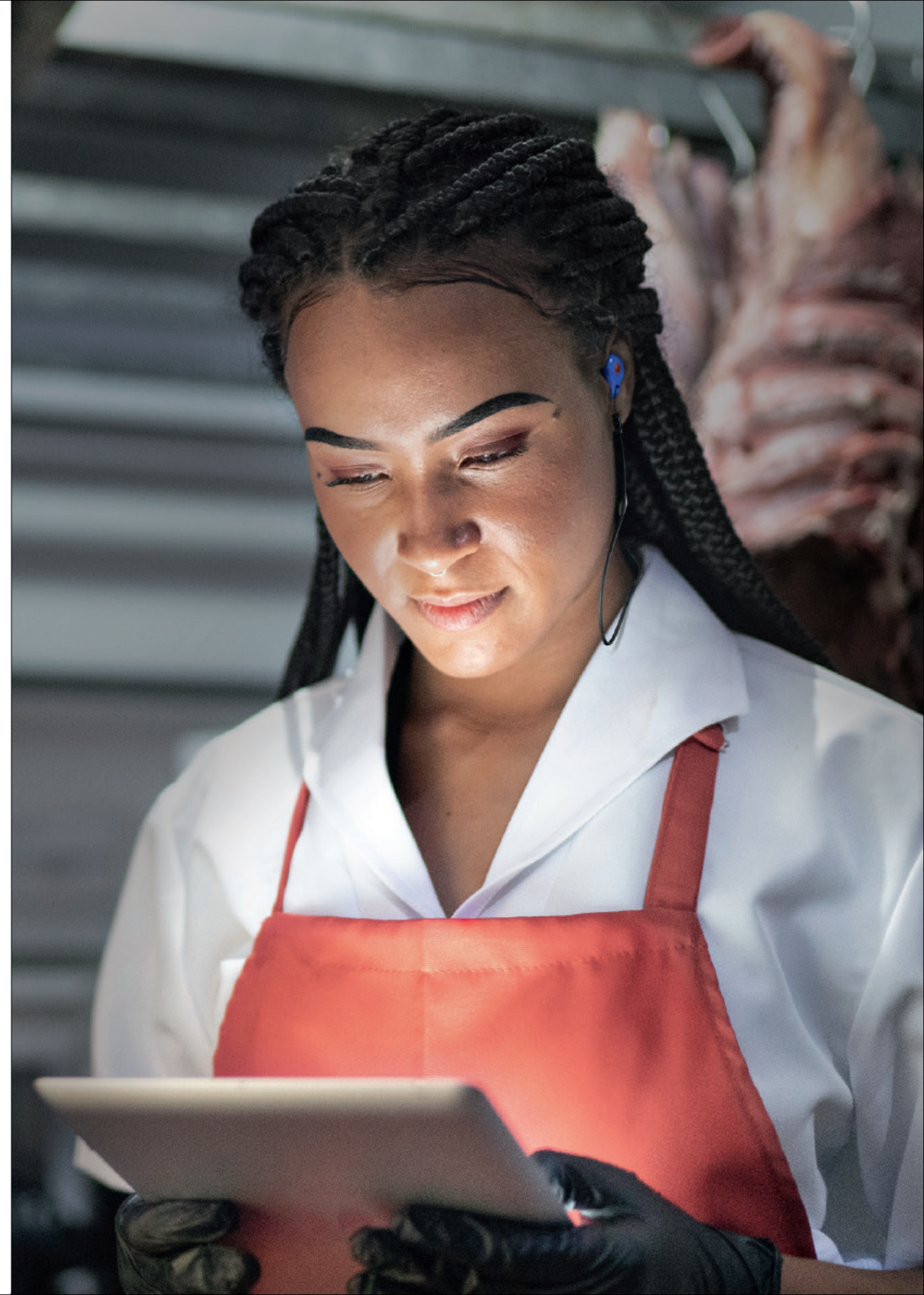
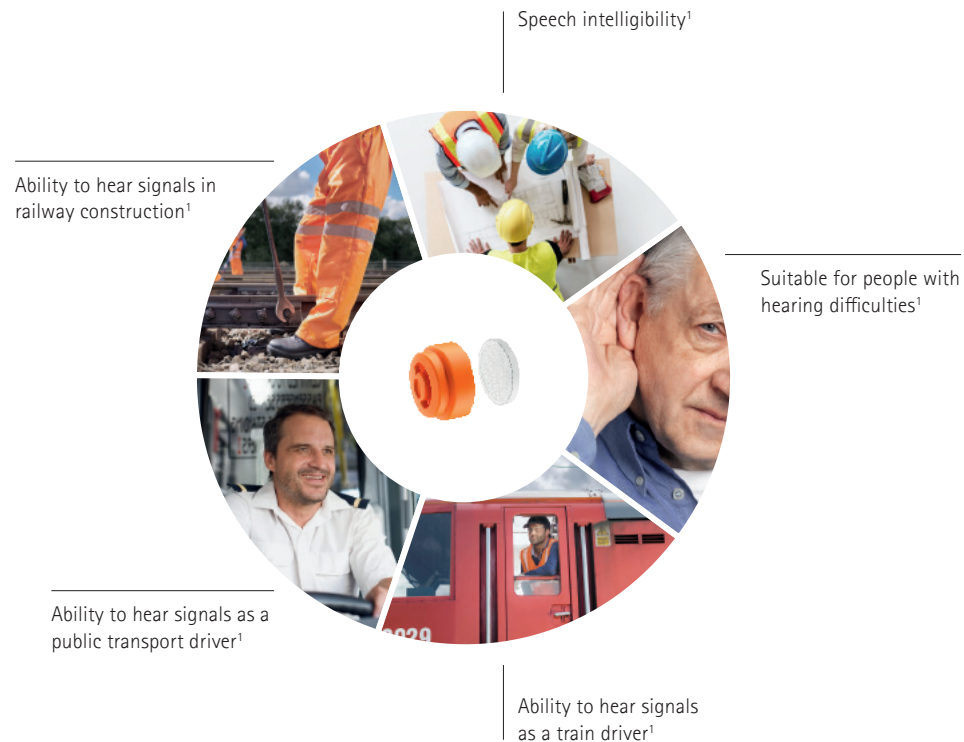
Phonak Serenity Choice™ Pro KI 25				Phonak Serenity Choice™ Pro KI 30	
Generic food industry	Generic	Custom acrylic	Custom silicone	Custom acrylic	Custom silicone
					
					
					
24	24	28	25	30	26
23	23	30	25	31	25
22	22	25	22	27	24
21	21	23	21	25	23
16	16	21	17	22	18
					

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Phonak Serenity Choice™

unique filter technology

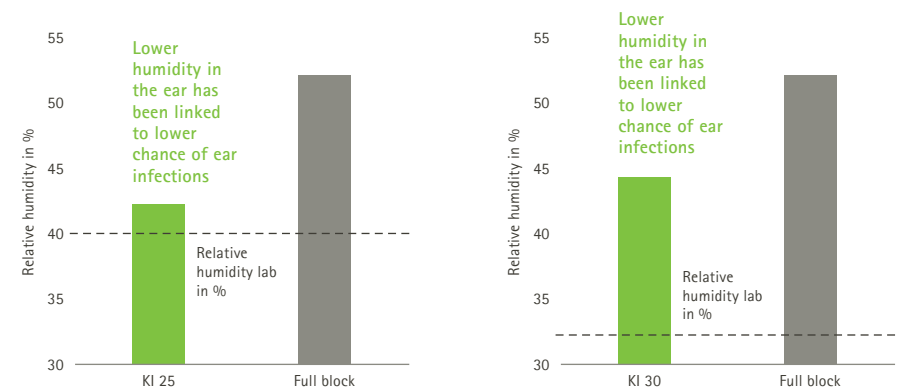
Phonak Serenity Choice™ Pro filters attenuate loud sound and noise while keeping relevant sound and speech thus allowing situational awareness and communication.





Why is it important to ‘let the ear breathe’?

The relative humidity of normal, healthy ears is between 40% and 70%¹. However, lower humidity in the ear has been linked to a reduced chance of ear infections. Lab tests show that Serenity Choice™ Pro filters allow lower levels of humidity in the ear compared to a full block filter.



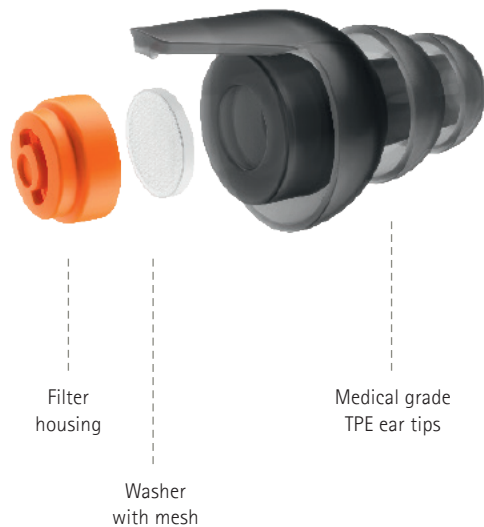
¹ Gray, R. F., Sharma, A., & Vowler, S. L. (2005). Relative humidity of the external auditory canal in normal and abnormal ears, and its pathogenic effect. *Clinical Otolaryngology*, 30 (2), 105–111.

Construction
is key

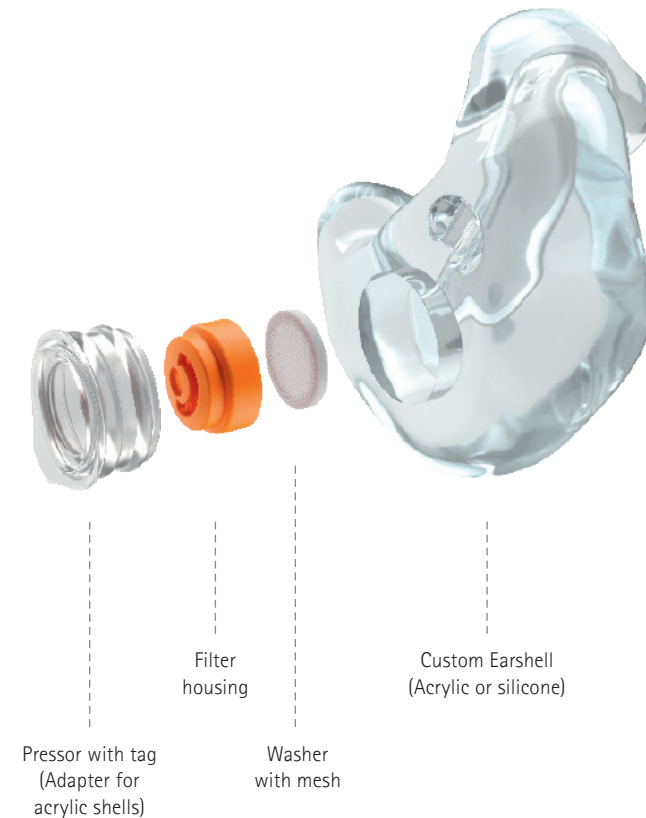


A unique simple, flexible and reliable construction

In the illustrations below, we can see how Serenity Choice™ is constructed. The generic product has a medical grade TPE (ThermoPlastic Elastomer) eartip and the custom product is a standard custom earshell made from silicone or acrylic. Each of these has a hearing protection filter inserted. The filter itself is made up of two main parts: the filter housing, available in different colors to distinguish between filter use cases; and a washer with mesh.



For custom products made from acrylic, there is also a pressor with tag. This provides adequate seal and retention for the filter which enables an easy filter exchange process.





Nothing
beats service

How we serve you and your workforce

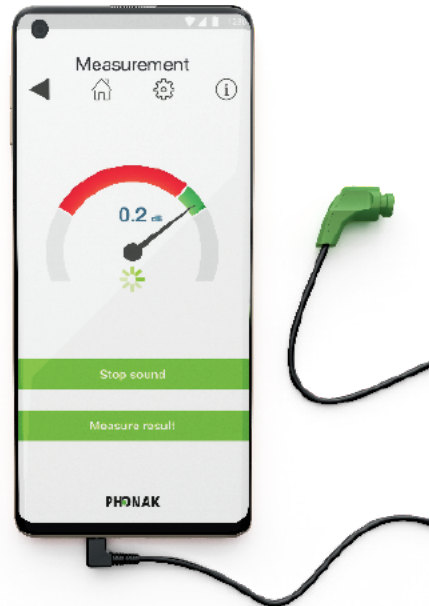
Our extensive service network is always on hand to take ear impressions and to test custom hearing protection devices. Contact your Phonak representative or check our website for a complete list of partners.

Acoustic Leakage Tester (ALT)

Verifying the fit and seal of custom earpieces is critical to ensure the correct attenuation performance of hearing protection. A leaky custom earshell reduces performance, making the user susceptible to hearing damage. Up until now, the standard ways to test for acoustic leakage were either by using test equipment which is large and complicated to use, requiring a noisy pump and air tubes or, more commonly, by performing audiometry.

This method is relatively time consuming, requiring around 15 minutes for each earpiece.

The Acoustic Leakage Tester (ALT) from Phonak not only simplifies this testing process, it is also fully portable and easy to use. You can use it to verify the fit and seal of custom (and generic) hearing protection in less than a minute. It runs on an iPod, iPhone or iPad, and you just need to press a single button for automated calibration and leakage measurement.



Getting the
numbers right



Performance and costs comparison

The actual purchase price of a hearing protection device doesn't take into consideration the costs over time, nor the advantages or disadvantages of a solution. The table below shows a comparison of common solutions based on average purchase prices, as well as different performance characteristics.

		Average initial costs / pair in CHF ¹	Costs / pair / year (230 working days, 2 pairs/day for foam)
Foam ear plugs		0.15	69.00
Ear muff		30.00	30.00
Serenity Choice™ Pro		20.00	20.00
Serenity Choice™ Pro Custom		130.00	130.00

28 1 average prices according to online shops for industry
2 Product lifetime can vary depending on use intensity and care.

Costs / pair / life cycle (5 years)	Considerations
345.00	• Risk of incorrect insertion and therefore reduced attenuation. • Acoustic leakage test only possible in lab.
30.00	• Risk of acoustic leakage when worn with safety glasses. • Risk of sweating and/or feeling isolation. • Acoustic leakage test only possible in lab. • Possible costs to replace foam on shell.
40.00 ²	• Recommended for occasional use. • Acoustic leakage test on site with ALT.
130.00*	• Custom-made for individual ears • Acoustic leakage test on site with ALT. *assuming no change of ear canal over time



Why Serenity Choice™ Pro?

Accurate performance

- Certified attenuation of 14–22 NRR / 22–30 SNR
- Situational awareness and communication ability
- Lets the ear breathe
- 100% tested

Simple construction

- Exchangeable filters
- 100% washable

Complete service

- Close by service partners
- Time saving Acoustic Leakage Tester

Economy of use

- Very economical and comprehensive hearing protection solution over time

About us

Since 1992 we have helped professionals to communicate effectively in challenging environments. Thanks to our close collaboration with end users to develop solutions that perfectly meet their needs, our miniaturized wireless earpieces, headsets and professional hearing protection devices are used and trusted by demanding customers around the world.

Based in Murten in one of Switzerland's first zero energy office buildings, Sonova Communications (formerly Phonak Communications) is a member of Sonova Group, a leading provider of innovative hearing care solutions.

www.phonak-communications.com