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# CUSTOMFIT **Hearing- and Noise Protection** *Overview*

We offer you an extensive portfolio for all areas of application - true to the motto: hearing protection that fits.

All bachmaier® CUSTOMFIT products are precisely adapted to the shape of the ear. The use of 100% biocompatible material guarantees a pleasant wearing experience: no pressing, no sweating, no feeling of being closed off. Our

self-developed filters ensure maximum protection of the hearing, depending on the requirements and the area of application. The products of the bachmaier® CUSTOMFIT hearing protection series are certified according to EN 352-2 and can therefore also be worn at the workplace in accordance with the PPE regulations.

	work	fidelity	helmet	shooter	silence	sleep	silence mini	<b>≋</b> splash
TYPE	hearing protection	hearing protection	hearing protection	hearing protection	hearing protection	noise protection	noise protection	water protection
MATERIAL (SURFACE)	soft (lacquered) rigid (lacquered)	soft (lacquered)	soft (lacquered)	soft (lacquered)	soft (lacquered)	soft (lacquered)	soft (lacquered)	splash (lacquered)
FILTER	work alpha work I work II work III	fidelity b30 fidelity b25 fidelity b15 fidelity b10	work I	filter electronics bachmaier® shooter	-	-	-	-
SNR-VALUE	up to 32 dB (rigid)	up to 25 dB	26 dB	24 dB	22 dB	20 dB	20 dB	-
DESIRED LASER ENGRAVING	~	~	~	~	<b>~</b>	~	~	<b>✓</b>
UNIFIT	~	~	-	-	-	-	-	-
CORD	~	*only for fidelity with handle	-	-	~	-	-	<b>✓</b>
CERTIFICATION	EN 352-2 BG approval	EN 352-2 BG approval	EN 352-2 BG approval	EN 352-2   EN 352-7 BG approval	EN 352-2 BG approval	-	-	-
SUITABLE FOR	construction industry craft agriculture & forestry	concerts nightlife travel office teaching clean industry	motorsport industrial applications with helmet	hunting shooting sports industry police & military operations	industry craft hobby leisure	sleep relaxation	learning concentration home office travel relaxation	swimming surfing splashing showers

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# List of recommendations by IFA (German Institute for Occupational Safety and Health)

# Additional marking for signal hearing

#### PASSIVE

N A M E	MATERIAL + FILTER		APPLICATION LIMIT [dB(A)]		RECOMMENDED APPLICATION AREA [dB(A)]		H-VALUE	M-VALUE	L-VALUE	SNR-VALUE	COMMENT
				L	нм	L					
		work alpha	106	104	91 - 101	89 - 99	28	24	22	27	W X S V E <sub>1</sub>
	soft	work I	106	103	91 - 101	88 - 98	28	24	21	27	WSVE <sub>3</sub> *
	SOIT	work II	104	100	89 - 99	85 - 95	26	22	18	25	W*
<b>₹</b> I.		work III	99	93	84 - 94	78 - 88	24	17	11	20	*
(T) work	starr	work alpha	110	107	95 - 105	92 - 102	32	28	25	31	WSVE <sub>1</sub> *
		work I	112	108	97 - 107	93 - 103	31	30	26	32	WSVE <sub>1</sub> *
		work II	105	101	90 -100	86 - 96	27	23	19	26	W
		work III	102	98	87 - 97	83 - 93	26	20	16	23	
	UNIFIT work		100	98	85 - 95	83 - 93	23	20	18	23	W S E <sub>3</sub>
		fidelity b15	96	96	81 - 91	81 - 91	13	14	14	15	W X S V E <sub>1</sub>
ر د ا داند.	soft	fidelity b25	103	103	88 - 98	88 - 98	21	21	21	23	W X S V E <sub>1</sub>
ighthal fidelity		fidelity b30	105	105	90 - 100	90 - 100	24	23	23	25	W X S V E <sub>1</sub>
	UNIFIT fidelity		97	94	82 - 92	79 - 89	18	17	14	19	W X S V E <sub>2</sub>
helmet	soft	work I	104	102	89 - 99	87 - 97	28	22	20	26	W E <sub>3</sub>
≪ silence	soft	-	100	97	85 - 95	82 - 92	25	18	15	22	W E <sub>3</sub>

### ACTIVE (ELECTRONIC)

NAME	MATERIAL + FILTER		APPLICAT [dB		LEVEL-DEPENDENT ATTENUATION	SAFETY-RELEVANT COMMUNICATION (EN 352-6, WITHOUT LEVEL LIMITATION)
shooter	soft	bachmaier® shooter	100	103	<b>✓</b>	-
idelity earphones	soft	-	105	101	-	cable   2-way communication

#### **EXPLANATIONS**

Application limit = Value of the daily noise exposure level LEX, 8h at which a level of 85 dB(A) is reached at the user's ear. Recommended application area = The area of the daily noise exposure level LEX, 8h at which a level between 70 and 80 dB(A) is reached at the user's ear.

H., M., L-value = Attenuation values for high, medium and low frequency noise.

SNR value = Single Number Rating of attenuation (must be subtracted from the C-weighted level at the workplace).

Area of application HM = High/medium frequency noise (LC - LA ≤ 5 dB), HML-Check according to DIN EN 458, i.e. calculation with M-value.

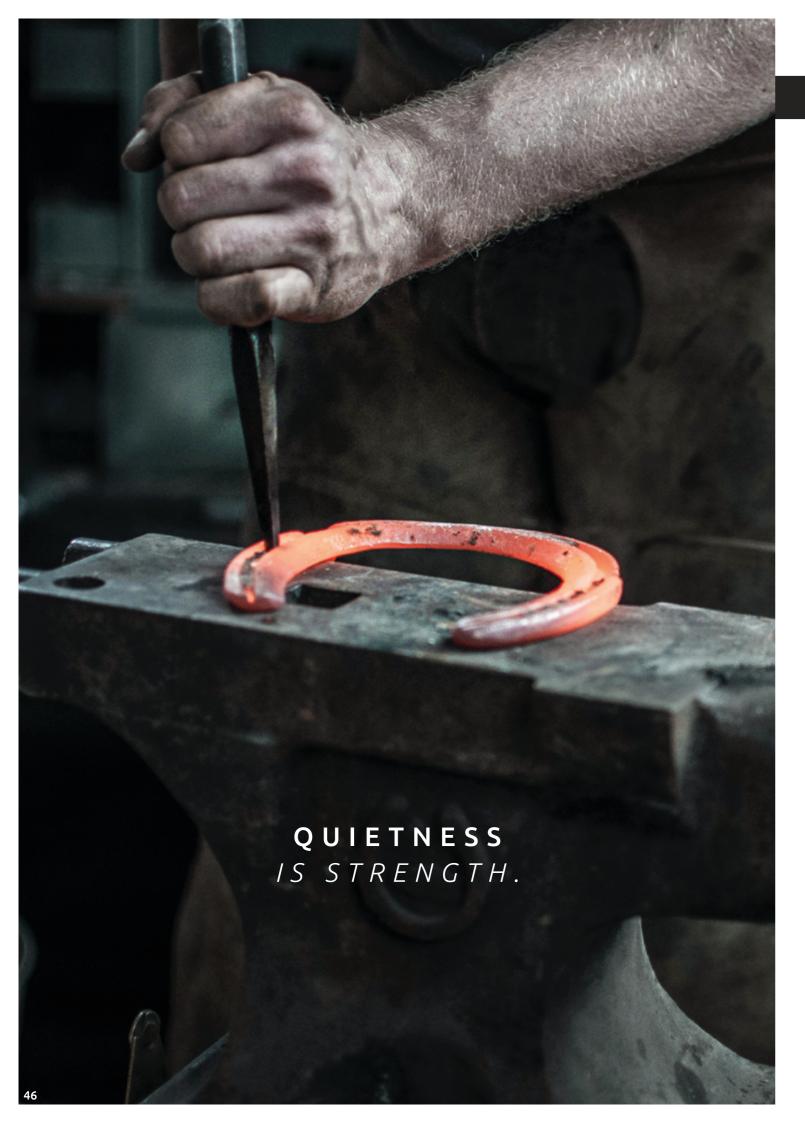
Area of application L = Low-frequency noise (LC - LA > 5 dB), HML-Check according to DIN EN 458, i.e. calculation with L-value.

#### COMMENT

**W** = Criteria "general hearing of warning signals", "noises containing information" and "speech intelligibility" fulfilled. (Mean increase of the average values of the octave sound insulation maximum 3.6 dB/octave.)

S = Signal hearing possible in the track superstructure.
V = Signal hearing possible when driving vehicles in public traffic.
E1| E2 | E3 = Signal hearing for train drivers and shunting drivers in railroad operation possible. Use only permitted after successfully passing a hearing test

according to the technical information of VBG and UVB "Noise protection measures for train drivers and shunting drivers" (previously BGI/GUV-I 5147). E1 = Very suitable, especially for people with hearing loss. | E2 = Well suited. | E3 = Limited suitable.



# bachmaier®

HEARING PROTECTION





HANDICRAFT | AGRICULTURE &

#### WHEN THE WORKS SIREN BLARES EARLY IN THE MORNING

The bachmaier® work reliably filters out disturbing or harmful noise and reduces it to a safe level. Signal hearing and speech intelligibility are retained - which is absolutely essential, especially when working in a team. The hearing protection ensures maximum work quality and longlasting concentration - without any noise-related fatigue.

#### HARD SHELL OR SOFT CORE

Thanks to customised production the bachmaier® work fits perfectly: no falling out and no feeling of pressure! The soft silicone hearing protection is so comfortable to wear that you can hardly feel it. We recommend the robust acrylic material if there is a lot of dust & splinters flying around. The bachmaier® work can be quickly fitted and removed at any time thanks to its handle.

// tested according to EN 352-2 standard // approved by occupational insurance association // with filter technology // choice of 4 filter levels

// SNR value: max. 32 dB (rigid) | max. 27 dB (soft) // optional with cord

// also available as UNIFIT





#### MATERIAL

We manufacture bachmaier® work from rigid acrylate or soft 40 Shore silicone.

materials in detail > page 104/106

Our **rigid** material is crystal clear, resistant and extremely durable. The surface including the inside is lacquered as standard and at no extra charge. This complete, highdensity sealing creates a brilliant glass look.







Our material **soft** (40 Shore silicone) is flexible, soft and highly robust. The surface is lacquered.















#### DESIRED LASER ENGRAVING

## UNIFIT

#### SOUND ATTENUATION

# work soft

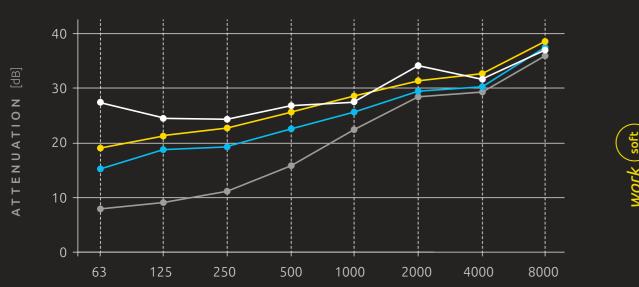
# work (rigid

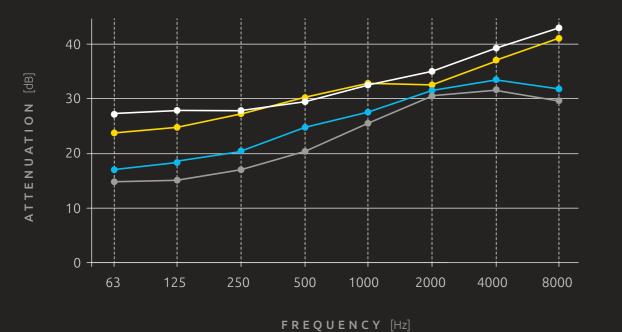
FILTER	SNR-value [dB]	H-value [dB]	M-value [dB]	<b>L-value</b> [dB]
work <b>alpha</b>	27	28	24	22
work <b>I</b>	27	28	24	21
work <b>II</b>	25	26	22	18
work <b>III</b>	20	24	17	11

SNR-value [dB]	H-value [dB]	<b>M-value</b> [dB]	<b>L-value</b> [dB]
31	32	28	25
32	31	30	26
26	27	23	19
23	26	20	16

#### ATTENUATION GRAPH (average value of sound attenuation)







# bachmaier® WOTK

HEARING PROTECTION







#### UNIFIT - FITS EVERY EAR

// maximum protection with minimum size

// shortened handle

// soft silicone tips in 2 sizes

// with filter technology

// durable & reusable

// including storage sleeve

## FOR OPTIMAL SIGNAL HEARING

This standard hearing protection combines high attenuation over all frequencies with optimum signal perception. UNIFIT work reliably protects the ear against harmful noise while maintaining signal perception. Thanks to metal filter technology, UNIFIT bachmaier® work is detectable.

// tested according to EN 352-2 standard
// approved by occupational insurance association

H-value: 23 dB | M-value: 20 dB | L-value: 18 dB

50%

TRIAL DISCOUNT

Your personal discount code:

UNIFIT\_WORK

Enter this code in the field provided in the shopping basket at **shop.bachmaier.de**. \*Discount code redeemable for 10 pairs.

RING & NOISE PROTECTION



# bachmaier®







THE PERFECT COMPANION FOR CONCERTS | NIGHTLIFE | TRAVEL | OFFICE | TEACHING & CLEAN INDUSTRY.

#### WAVEBREAKER FOR THE EARS

The bachmaier® fidelity was developed for clear and tonal accurate hearing and enables perfect communication – even in very loud environments. The special filter technology combines undistorted sound reproduction with excellent protection. Whether you're going to concerts, festivals, the disco or simply to the office: with the bachmaier® fidelity in your ear you can really hear everything – at a comfortable volume and with perfect sound.

#### SMALL IN THE EAR, BIG IN THE EFFECT

The bachmaier® fidelity is custom-made and therefore fits perfectly: no falling out and no feeling of pressure! This hearing protection sits discreetly in the ear and is so comfortable to wear that you can hardly feel it. The use of 100% biocompatible material guarantees a pleasant wearing experience: no pressing, no sweating, no feeling of closure.

// tested according to EN 352-2 + ANSI standard // approved by occupational insurance association // with high-tech filter technology // choice of 4 different filters and 3 models // optional with cord // also available as UNIFIT



#### MATERIAL

Our material **soft** (40 Shore silicone) is flexible, soft and highly robust. The surface is lacquered.

material in detail > page 106













#### DESIRED LASER ENGRAVING

In addition to a right and left side marking, there is the possibility of having the name lasered onto the product.

#### ADD-ONS

- + compatible with bachmaier® *shooter* electronics
- + compatible with bachmaier FIDELITY **EARPHONES**





Available in the bachmaier® online store!

### CUSTOMFIT bachmaier® fidelity

#### MODELS

fidelity without handle

**Z** fidelity **with handle** 

fidelity with flush filter







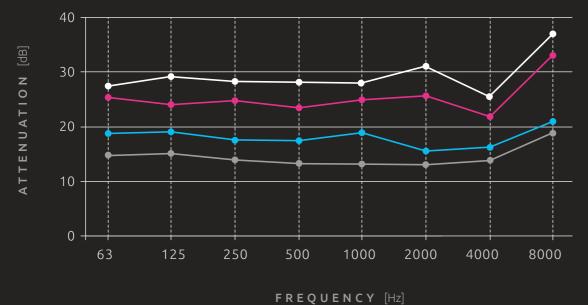
#### SOUND ATTENUATION

# fidelity (soft)

FILTER	SNR-value [db]	<b>H-value</b> [db]	<b>M-value</b> [db]	<b>L-value</b> [db]
fidelity <b>b10</b>	11	10	9	10
fidelity <b>b15</b>	15	13	14	14
fidelity <b>b25</b>	23	21	21	21
fidelity <b>b30</b>	25	24	23	23

ATTENUATION GRAPH (average value of sound attenuation)

● fidelity **b10** ● fidelity **b15** ● fidelity **b25** ● fidelity **b30** 





## UNIFIT









#### UNIFIT - FITS EVERY EAR

// maximum protection with minimum size

// shortened handle

// soft silicone tips in 2 sizes

// with filter technology

// durable & reusable

// including storage sleeve

#### FOR FIDELITY HEARING

The UNIFIT fidelity convinces with its consistent attenuation and good speech intelligibility. The ear is protected from excessive noise, true hearing and excellent communication remains possible. The almost linear and flat attenuation in conjunction with the SNR value of 19 dB make this standard hearing protection the ideal companion for almost all noise situations.

// tested according to EN 352-2 standard // approved by occupational insurance association

H-value: 18 dB | M-value 17 dB | L-value: 14 dB

50%

TRIAL DISCOUNT

Your personal discount code:

UNIFIT\_FIDELITY

Enter this code in the field provided in the shopping basket at **shop.bachmaier.de**. \*Discount code redeemable for 10 pairs.

ARING & NOISE PROTECTION

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# bachmaier® helmet

HEARING PROTECTION







#### THE PERFECT COMPANION FOR MOTORSPORT AND INDUSTRIAL APPLICATIONS WITH HELMET.

#### ADIÉU WIND NOISES & CO

The bachmaier® helmet effectively attenuates disturbing or harmful frequencies of wind and driving noise. Thanks to the integrated filter, you never feel isolated from the outside world in any situation. The warning signals in traffic, the voice of the co-rider and - very importantly the sound of the engine remain clearly perceptible. With the bachmaier® helmet you can enjoy every tour again, savour the driving pleasure to the full and arrive at the end completely relaxed - without any subsequent ringing in the ears or headaches.

#### EASY HANDLING, COMFORTABLE FIT

This hearing protection is ideal for helmet wearers due to its extra small size. It fits perfectly thanks to its custommade design: no falling out and no feeling of pressure. Thanks to the soft silicone and small size, these hearing protectors are so comfortable to wear that you can hardly feel them. The bachmaier helmet can be quickly fitted and removed at any time with its handle.





// tested according to EN 352-2 standard // approved by occupational insurance association // with filter technology

Our material **soft** (40 Shore silicone) is flexible, soft and highly robust. The surface is lacquered.

material in detail > page 106













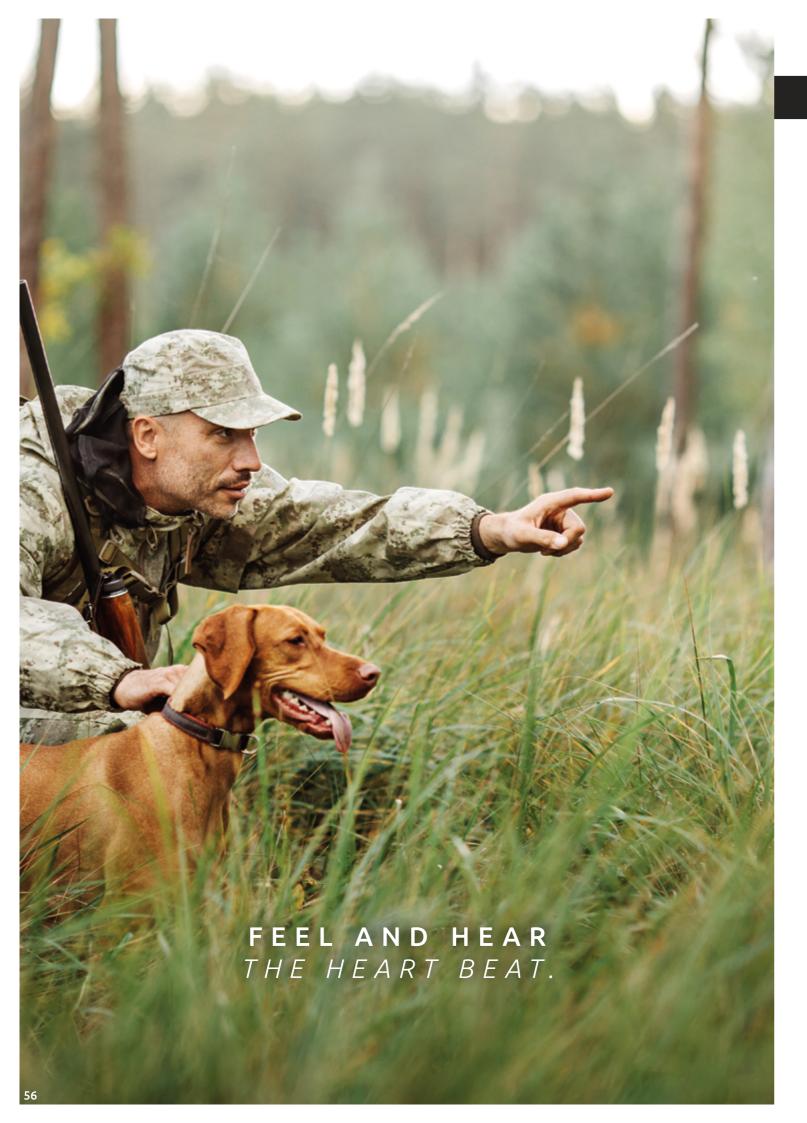






#### DESIRED LASER ENGRAVING





# bachmaier® shooter

HEARING PROTECTION



THE PERFECT COMPANION FOR HUNTING | SPORT SHOOTING | INDUSTRY | POLICE & MILITARY OPERATIONS.

#### TOUGH HIGH-TECH PROTECTION

This custom-made impulse hearing protection is equipped with a highly advanced active electronics. This reduces loud, sudden noise peaks to a comfortable level that is not harmful to the hearing. With the bachmaier® shooter you can hear all ambient noise, both before and immediately after the shot, at the usual volume. This means you are immediately ready for action again without any whistling in your ears.

> All information on the electronics on page 59.

#### LISTENING LIKE A LYNX

The bachmaier® shooter fits perfectly thanks to customisation: no falling out and no feeling of pressure! The hearing protection made of soft silicone is so comfortable to wear that you can hardly feel it. Listen like a lynx – permanently without hearing damage.

// tested according to EN 352-2 + EN 352-7 standard // approved by occupational insurance association // with active filter technology

#### MATERIAL

Our material **soft** (40 Shore silicone) is flexible, soft and highly robust. The surface is lacquered.

// 3 settings for selecting the environmental volume

material in detail > page 106

including case and

cleaning tool!















#### DESIRED LASER ENGRAVING

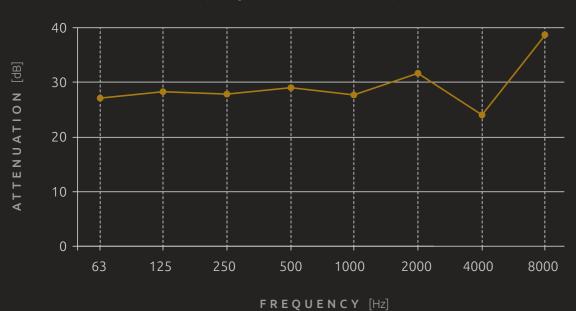
#### CUSTOMFIT bachmaier® shooter

#### SOUND ATTENUATION

SNR-value	H-value	M-value	L-value
24 dB	23 dB	23dB	24 dB

passive attenuation EN 352-2

#### ATTENUATION GRAPH (average value of sound attenuation)



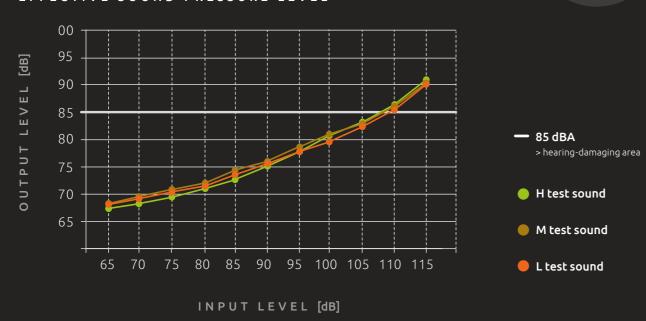
#### LEVEL-DEPENDENCY

H-value	M-value	L-value
103,1 dB	102,6 dB	105,5 dB

criteria levels

active attenuation EN 352-7

#### EFFECTIVE SOUND PRESSURE LEVEL



## CUSTOMFIT

# bachmaier® shooter



#### FILTER ELECTRONICS

The professional filter electronics bachmaier® shooter reacts automatically to impulse and continuous noise. It attenuates all level peaks above 85 dB up to the criterion level of 107 dB. Under a noise exposure of 85 dB, the active hearing protection allows speech intelligibility. Ideal for hearing all ambient sounds and being protected from impulse noise. To adjust the ambient sound level, you can choose between three programmes using a push-button switch:

- 1 QUIET // attenuation of all frequencies by 6 dB
- 2-NEUTRAL// no attenuation or gain of ambient sound level
- 3 LOUD // gain of all frequencies by 6 dB

// tested according to EN 352-2 and EN 352-7 standard // colour: black // battery size: 10 // operating time approx. 80 hours

#### ADD-ONS

+ compatible with CUSTOMFIT bachmaier® fidelity

# bachmaier® silence

HEARING PROTECTION







#### THE PERFECT COMPANION FOR INDUSTRY | HANDICRAFT | HOBBY & LEISURE.

#### FOR EVERYTHING THAT SCREECHES & RATTLES

This custom-made hearing protection is a real all-rounder in its field of application. No matter whether you are doing DIY, snowblowing or lawnmowing - your hearing is always reliably protected and you can devote your full concentration to any task. With CUSTOMFIT bachmaier® silence you have found an uncomplicated, robust and durable hearing protection for hobby and profession.

#### EASY HANDLING, SECURE FIT

Thanks to customised production, the bachmaier® silence fits perfectly: no falling out and no feeling of pressure! The soft silicone ear protectors are so comfortable to wear that you can hardly feel them. Thanks to its handle, the hearing protection can be fitted and removed easily at any time.

// tested according to EN 352-2 standard // approved by occupational insurance association // optional with cord





#### MATERIAL

Our material **soft** (40 Shore silicone) is flexible, soft and highly robust. The surface is lacquered.

material in detail > page 106



















#### DESIRED LASER ENGRAVING





# bachmaier® sleep







THE PERFECT COMPANION FOR HOTEL | MOUNTAIN HUTS | CAMPING SITES | COUCH & MARITAL BED

#### SILENCES THE SNORING MONSTER

The bachmaier® sleep reliably attenuates all sleep disturbing noises, such as snoring or traffic noise, allowing you to fall asleep and dream again in a relaxed way. Distinctive and important noises, such as an alarm clock, the telephone or the screaming of a child, remain hearable. This noise protection reliably ensures a restful sleep and peaceful nights - whether in a mattress camp in a mountain hut, in a hotel bed on the Côte d'Azur or on the couch at home.

#### SMALL, INCONSPICUOUS & COMFORTABLE

Thanks to the super-soft silicone and its tiny size, bachmaier® sleep is so comfortable that you hardly feel it and is therefore ideal for side sleepers. Thanks to the custom-made design it fits like it was cast-on, no falling out and no feeling of pressure! A small, soft handle ensures that the noise protection can be quickly inserted and removed.





// ideal for side sleepers // with handle

#### MATERIAL

Our material **soft** (40 Shore silicone) is flexible, soft and highly robust. The surface is lacquered.

material in detail > page 106















#### DESIRED LASER ENGRAVING

<sup>\*</sup> internally evaluated reference attenuation value

# bachmaier® silence mini

NOISE PROTECTION







#### THE PERFECT COMPANION FOR TRAVELLING | HOME OFFICE | LEARNING & RELAXING.

#### ADIÉU BLABBERMOUTH & CO

The bachmaier® silence mini fits extra discreetly in the ear thanks to its small and snug design and effectively protects the hearing from everyday noise. This noise protection ensures silence and relaxation in a heartbeat no matter whether you are travelling by public transport, need to concentrate in your home office or want to read a book in a café.

#### EASY HANDLING, COMFORTABLE FIT

This noise protection is custom-made exactly after the impression of your ears and therefore fits perfectly: no falling out and no feeling of pressure! Thanks to the supersoft silicone and its tiny size the bachmaier® silence mini is so comfortable that you hardly feel it. It feels so natural that after a while you will forget you have anything in your ears at all. Thanks to its integrated recessed handle, you can fit and remove the noise protector in a relaxed way.





// small and inconspicuous in the ear // with recessed handle

#### MATERIAL

Our material soft (40 Shore silicone) is flexible, soft and highly robust. The surface is lacquered.

material in detail > page 106















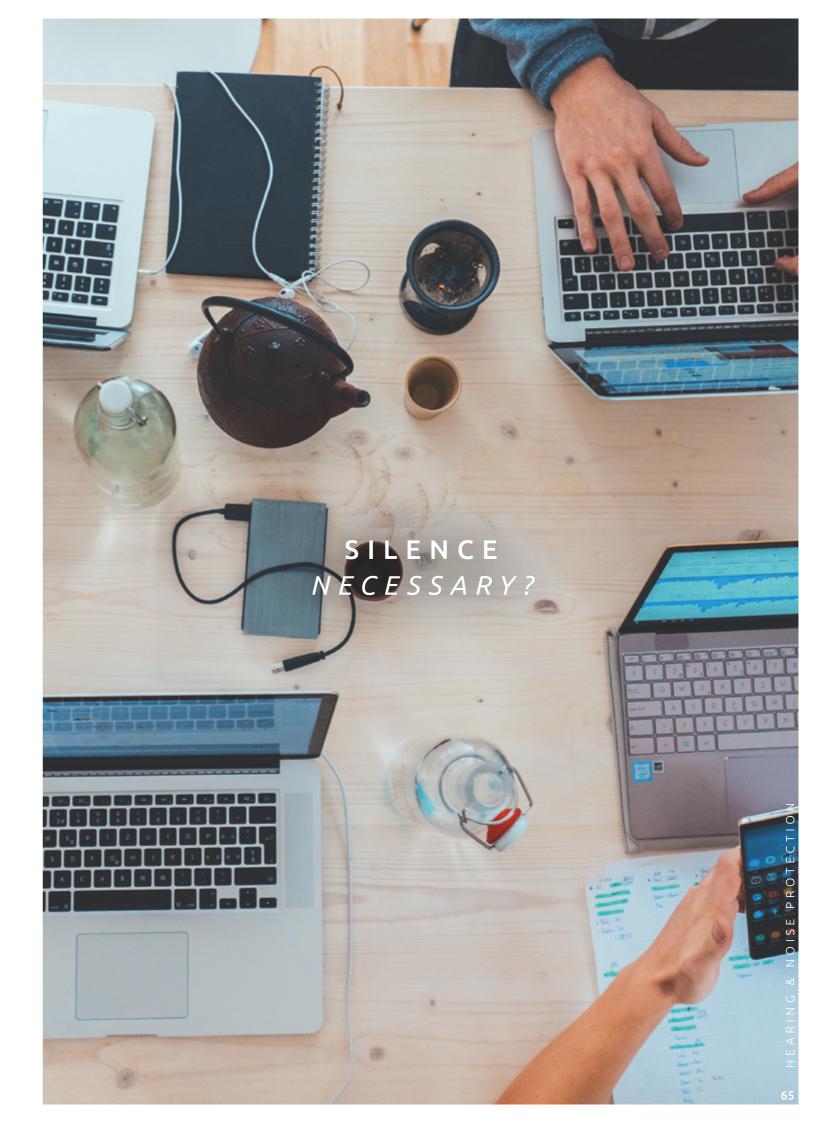




#### DESIRED LASER ENGRAVING

In addition to a right and left side marking, there is the possibility of having the name lasered onto the product.

\* internally evaluated reference attenuation value





# bachmaier®









#### THE PERFECT COMPANION FOR SWIMMING | KITING | SURFING | SAILING | SPLASHING & SHOWERING.

Not suitable for sport and professional divers.

#### TYMPANIC TUBES & CO

The soft, floating silicone seals the ear and the entire auricle, thus preventing water or bacteria from entering the ear canal. Infections and inflammations of the inner ear can thus be prevented. Good news for all surfers, swimmers, sailors and water rats – whether at the sea or in a swimming pool. The bachmaier® splash is also perfect for children with tympanic tubes.

#### EASY HANDLING, COMFORTABLE FIT

Thanks to customisation, the bachmaier® splash fits like a glove, no falling out and no feeling of pressure! Thanks to its handle, the water protection can be fitted and removed easily, even by children.

// ideal for children with tympanic tubes

// floatable

// with handle

// optional with cord

#### MATERIAL

Our material **splash** (35 shore silicone) is floatable, very soft and elastic.

material in detail > page 107









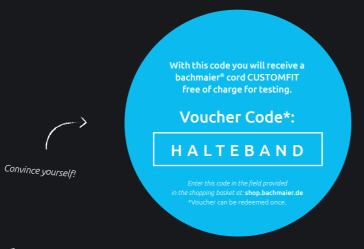








All accessories, prices and information can be found at: www.shop.bachmaier.de



# Keeps, what it promises!

The bachmaier® cord CUSTOMFIT.

SKU: 1106

// QUIET	The cord (1) produces almost no transmission sound thanks to its hydrophobic coating and wide-mesh interlacing.
// COMFORTABLE	The special surface coating of the cord guarantees maximum wearing comfort.
// INNOVATIVE	The advanced connecting element (2) is designed to act as a release point in case of too high tensile load (PPE Regulation EU 2016/425) and at the same time to interrupt the sound conduction.
// RELIABLE	The elastic TPE element (3) releases securely from the anchorage at a tensile load of approx. 1.0 kg, thus significantly minimising the risk of injury.
// COMPATIBLE	The cord CUSTOMFIT is suitable for all rigid and soft earmoulds with a handle hole ≥ 2.9 mm
// HIGH QUALITY	The cord is produced by bachmaier® and undergoes a 100% quality inspection of the adhesive connection.
// SIMPLE	The complete cord is mounted in the twinkling of an eye. The removable, stable clip (4) holds reliably on almost all textiles.
// SAVE	The components are detectable and flame-resistant (EN ISO 352).





#### HEARING PROTECTION ACCESSORIES

You can find our free promotional items at: www.shop.bachmaier.de



Anyone who thinks that hearing protection advertising is always dust-dry is totally wrong!
With our posters and flyers you can advertise the individual CUSTOMFIT hearing protection products in a specific way and with a twinkle in your eye.



#### FLYER

All the important facts about CUSTOMFIT hearing protection products are clearly and compactly explained here. features & info | product picture | SNR value | colour range flyer package SKU: 8452

#### OSTER

All eight poster designs are available as a package in DIN A1 or DIN A2 format.

DIN A1 SKU: 8465 | DIN A2 SKU: 8453

# Put through its paces.

Within the framework of the valid PPE regulation, a permanent duty of documentation is required when hearing protection earmoulds are supplied, in which a functional test must be carried out on the customer.

According to the PPE regulation (EU) 2016/425, manufacturers and distributors of hearing protection earmoulds are only allowed to place products on the market with sufficient protective effect. To ensure the protective effect, a functional test is required when custom-made hearing protection is supplied and thereafter at intervals of three years.

The functional test can be an acoustic test (audiometry) or an air pressure measurement (leak test) of the hearing protection earmould worn in the ear canal. Only after passing the functional test an assured sound attenuation of the hearing protection can be assumed.

- A) AUDIOMETRICAL TEST METHOD
- B) LEAK TEST METHOD BY AIR PRESSURE



All information and detailed instructions on the audiometrical and leak test methods can be found at: www.bachmaier.de/funktionspruefung

test result

Leak test instrument available in the bachmaier®

online shop.

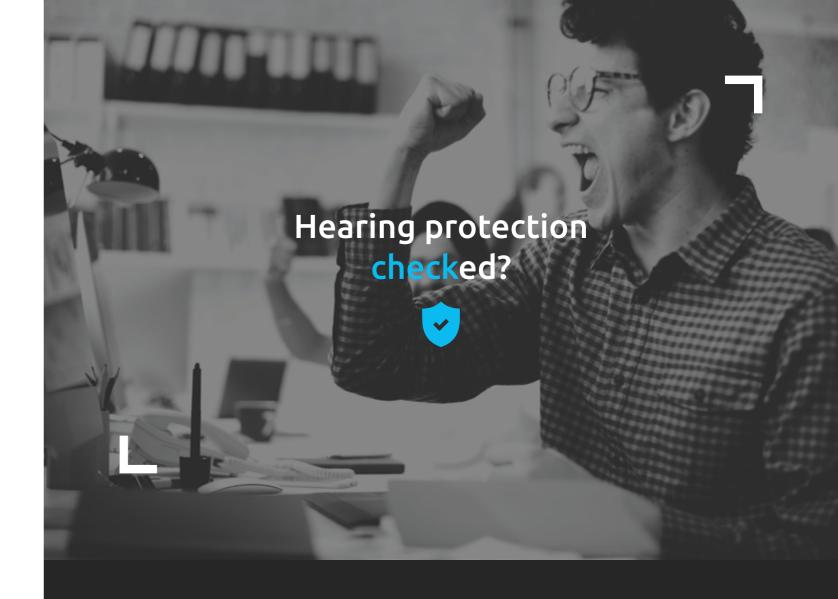
#### LEAK TEST INSTRUMENT

Incl. two adapters, filter removal pliers and battery 9V

With the help of the supplied adapters, many custommade hearing protection products from other brands can also be tested according to the valid standard EN 352. The instrument can be easily operated by two push buttons.

// dimensions: 138 x 66 x 27 mm

bachmaier® leak test instrument with case SKU: 2116P



#### COMMUNICATE RESULT WITH ONE CLICK

The PPE regulation (EU) 2016/425 requires the documentation of the functional test and the training of the user. To keep the process simple and uncomplicated, we have developed the online registration portal Hearing Protection Check.

At www.bachmaier.de/check you can confirm the user's instruction for the correct use and document the functional test.

If you miss the hearing protection check, the certification according to the PPE regulation (EU) 2016/425 is not applicable for the respective hearing protection.

www.bachmaier.de/**check** 

Fill in.

Submit.



# Stay connected.







#### www.bachmaier.de

Experience bachmaier® on facebook, Instagram and YouTube and share your bachmaier® moments with us. Write us, call us or link us under #daslebenhören and #hearosontour.

We are excited about every post! :

You want to subscribe to the bachmaier® newsletter Just send a short email to: office@bachmaier.de



Das Leben hören.



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