

# ELACIN Biopact FlexComfort

The ELACIN Biopact FlexComfort is a very compact hearing protector with no protruding parts that provides optimal protection and is easy to wear under a helmet. The Biopact FlexComfort has a flexible grip that eases its insertion and removal. An optional cord can also be supplied with this hearing protector.

The Biopact FlexComfort has been developed at the request of the Dutch traffic police motorcyclists. They were looking for a comfortable hearing protector to protect them against harmful wind noise. Because when driving at high speeds, the noise can rise to a dangerous level of over 100 decibels!

**Official measurements carried out by the traffic police (when using a good, integral helmet) produced alarming results:**

Speed	Wind noise
100 km/hour	94 dB(A)
120 km/hour	98 dB(A)
140 km/hour	102 dB(A)

Hearing impairment can occur from as little as 82 dB(A). And the higher this number, the quicker damage occurs. The table below indicates how long our hearing can stand the various noise levels before becoming impaired.

Volume	Max. exposure each working day
80 dB(A)	8 hours
83 dB(A)	4 hours
86 dB(A)	2 hours
89 dB(A)	1 hour
92 dB(A)	30 minutes
95 dB(A)	15 minutes

These figures show that a motorcyclist can drive for about 15 minutes at a speed of 100 km/hour without incurring any hearing impairment. At a speed of 120 km/hour impairment occurs after as few as 7 minutes. And at 140 km/hour, hearing will be damaged after as few as 3 minutes. Hearing protection is certainly no luxury in such circumstances!

## MATERIAL

The Biopact FlexComfort is made of silicone material, with a degree of hardness of 60 Shore.

## CHOICE OF FILTERS

Depending on the noise level, there is a choice of four different ELACIN filters:

- MM12 filter (beige)
- MM22 filter (grey)
- MMo2 filter (brown)
- MMo1 filter (black)



ELACIN BIOPACT FLEXCOMFORT

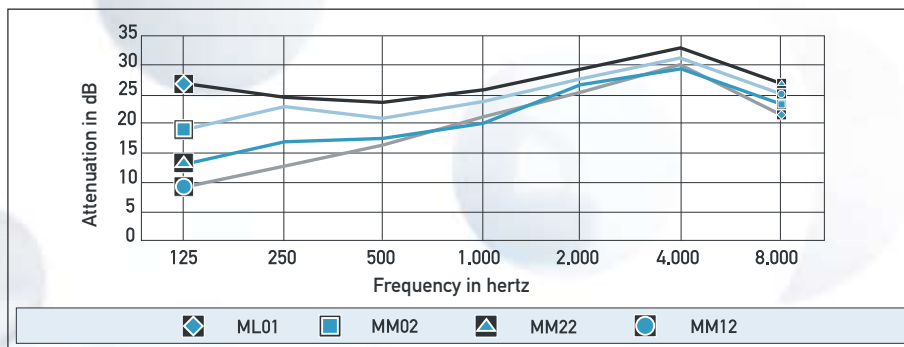


## ATTENUATION CHARACTERISTICS

Below you will find the attenuation characteristics and graphics of the ELACIN Biopact FlexComfort.

Freq.	: frequency in hertz
H	: high frequency attenuation (f > 2000 Hz)
M	: medium attenuation frequency (f > 500 and f < 2000 Hz)
L	: low attenuation frequency (f < 500 Hz)
SNR	: Single Number Rating, to be deducted from C-weighted noise level
Mf in dB	: average attenuation characteristics at given frequency f
S <sub>p</sub> in dB	: standard deviation at given frequency f
APV <sub>f</sub> in dB	: assumed Protection Value (M <sub>f</sub> - 1x S <sub>p</sub> ) in dB, at given frequency f

Freq. (Hz)		125	250	500	1000	2000	4000	8000	H	M	L	SNR
APV <sub>f</sub> (dB)	MM 12	9,5	11,7	16,3	21,5	25,7	29,9	23,6	26	20	14	23
	MM 22	13,0	16,4	17,2	20,2	26,4	29,6	24,7	26	20	17	24
	MM 02	18,9	21,8	20,8	24,6	26,8	31,8	25,9	27	24	22	27
	ML 01	26,1	24,2	23,5	25,4	28,5	32,6	25,8	28	26	25	28



## COLOUR

The standard version of the Biopact FlexComfort is supplied in a transparent colour.

At an additional charge, this hearing protector is also available in beige, blue, yellow, red and black.

## SUITABLE FOR USE IN:

- industrial environments
- the timber industry
- metal processing

## BENEFITS

- Custom-made: a perfect fit every time
- No protruding parts; fits entirely into the auditory canal
- Suppresses harmful wind noise
- Designed to be worn under a helmet
- Made of soft, light material
- Easy to insert and remove
- Almost invisible in the ear
- No feeling of pressure in the ears
- Speech and surrounding noises remain perceptible
- Safe and comfortable
- Ventilation of the auditory duct
- Quick and easy to clean