

3M™ E-A-Rcaps™

Technical datasheet



Product description

The 3M™ E-A-Rcaps™ banded hearing protector is fitted with semi-aural eartips designed to seal the entrance part of the ear canal to help reduce exposure to hazardous levels of noise and loud sound.

3M E-A-Rcaps are approved for wear as a banded hearing protector under-the-chin or behind the head. They may be used for protection against moderate to high noise environments offering effective protection across all test frequencies.

Key features

- ▶ One of the lightest banded hearing protectors on the market
- ▶ Flexible and durable band that can be washed and reused multiple times
- ▶ Soft foam pod shaped caps to block the ear canal
- ▶ Replacement ear cap pods are available (ES-01-300)
- ▶ Designed to be worn under-the-chin or behind the head to offer minimal interference with other head PPE such as hard hats
- ▶ Ideal for intermittent wear, the band can be easily stored around the neck when not in use
- ▶ SNR 23 db when worn under-the-chin and SNR 21 dB when worn behind the head
- ▶ Compatible with the 3M™ E-A-Rfit™ Dual-Ear Validation System

Standard and approval

The 3M E-A-Rcaps are type approved against the European Regulation (EU) 2016/425 by BSI Assurance UK Ltd, Kitemark Court, Davy Avenue, Knowlhill, Milton Keynes MK5 8PP, UK, Notified Body No. 0086.

These products meet the requirement of the Harmonised European Standard EN 352-2:2002.

The applicable Certificate(s) and Declaration(s) of Conformity are available at www.3m.com/Hearing/certs.

Important notice

The use of the 3M product described within this document assumes that the user has previous experience of this type of product and that it will be used by a competent professional. Before any use of this product it is recommended to complete some trials to validate the performance of the product within its expected application.

All information and specification details contained within this document are inherent to this specific 3M product and would not be applied to other products or environment. Any action or usage of this product made in violation of this document is at the risk of the user.

Compliance to the information and specification relative to the 3M product contained within this document does not exempt the user from compliance with additional guidelines (safety rules, procedures). Compliance to operational requirements especially in respect to the environment and usage of tools with this product must be observed. The 3M group (which cannot verify or control those elements) would not be held responsible for the consequences of any violation of these rules which remain external to its decision and control.

Warranty conditions for 3M products are determined with the sales contract documents and with the mandatory and applicable clause, excluding any other warranty or compensation.

Personal Safety Division

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Materials

The following materials are used in the manufacture of this product.

Band	Polycarbonate
Ear tips	Polyurethane foam

Attenuation values:

f (Hz)	63	125	250	500	1000	2000	4000	8000
Mf (dB)	21.0	20.2	19.8	19.1	23.2	33.4	41.0	40.7
sf (dB)	4.1	4.4	4.2	4.3	3.7	4.5	2.9	5.4
APVf (dB)	16.9	15.8	15.5	14.8	19.5	29.0	38.1	35.2

SNR = 23dB, H = 27dB, M = 19dB, L = 17dB, APVf (dB) = Mf – sf (dB)
Under-the-chin wearing mode

f (Hz)	63	125	250	500	1000	2000	4000	8000
Mf (dB)	20.5	19.4	16.0	16.5	20.9	31.4	35.3	36.0
sf (dB)	4.2	5.4	4.1	4.2	2.5	4.3	3.6	4.0
APVf (dB)	16.3	14.0	11.9	12.3	18.4	27.1	31.7	32.0

SNR = 21dB, H = 25dB, M = 17dB, L = 14dB, APVf (dB) = Mf – sf (dB)
Behind the head wearing mode

Key:

f = Test frequency

Mf = Mean attenuation value

sf = Standard deviation

APVf = Assumed Protection Value

H = High-frequency attenuation value (predicted noise level reduction for noise with LC – LA = -2dB)

M = Medium-frequency attenuation value (predicted noise level reduction for noise with LC – LA = +2dB)

L = Low-frequency attenuation value (predicted noise level reduction for noise with LC – LA = +10dB)

SNR = Single Number Rating (the value that is subtracted from the measured C-weighted sound pressure level, LC in order to estimate the effective A-weighted sound pressure level inside the ear).