Technical Datasheet



3MTM E-A-RTM FlexiCapTM Earplugs

Product Description

The 3MTM E-A-RTM FlexiCapTM semi-aural earplugs are designed to seal the entrance point of the ear canal to help reduce exposure to hazardous levels of noise and loud sound. These products are designed to be worn in under-the-chin, over-the-head and behind-the-head mode.

Key Features

- Round pod plugs that seal the entrance of ear canal thus making them more wearer acceptable
- No need to handle the plug tip making them more hygienically acceptable
- · Low transmission noise through the band
- · Can be easily stored around the neck when not in use
- . Optimum attenuation for many application
- · Band is easy to wash and clean
- Replaceable pods for greater hygiene

Applications

The 3MTM E-A-RTM FlexiCapTM semi-aural earplugs are ideal for moderate noise exposure levels, and are suited for a wide range of industrial workplace, particularly for intermittent noise exposure. Examples of typical applications include:

- · Assembly work
- Automotive
- Chemical & pharmaceutical manufacture
- Inspection work
- Light engineering
- Metal processing
- Textile manufacture
- Woodworking

Standards and Approval

The 3M[™] E-A-R[™] FlexiCap[™] semi-aural earplugs are tested and CE approved against the European Standard EN352-2:1993. These products meet the Basic Safety Requirements as laid out in Annex II of the European Community Directive 89/686/EEC and have been examined at the design stage by INSPEC International Limited, 56 Leslie Hough Way, Salford, Greater Manchester M6 6AJ, UK (Notified Body number 0194).

Materials

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

Component	Material				
Band	ABS and Polypropylene				
Ear tip	Polyurethane Foam				



Attenuation Values

3M™ E-A-R™ FlexiCap™ semi-aural earplugs - Under-The-Chin

Frequency (Hz)	63	125	250	500	1000	2000	4000	8000
Mean attenuation (dB)	26.1	22.8	20.1	18.6	22.0	32.7	36.5	37.0
Std deviation (dB)	5.2	6.0	5.0	3.3	3.4	4.1	4.3	8.3
Assumed Protection Value (dB)	20.8	16.8	15.1	15.3	18.6	28.6	32.2	28.7

SNR=23 db $\,$ H=26 db $\,$ M=19 db $\,$ L=17 db

$3M^{\intercal M}$ E-A-R $^{\intercal M}$ FlexiCap $^{\intercal M}$ semi-aural earplugs - Behind-The-Head

Frequency (Hz)	63	125	250	500	1000	2000	4000	8000
Mean attenuation (dB)	24.4	22.1	18.4	17.4	21.1	31.9	36.4	37.8
Std deviation (dB)	7.1	6.2	4.5	3.9	3.8	5.2	4.7	7.4
Assumed Protection Value (dB)	17.4	15.9	13.8	13.5	17.5	26.8	31.8	30.4

SNR=21 db $\,$ H=25 db $\,$ M=17 db $\,$ L=15 db

3M™ E-A-R™ FlexiCap™ semi-aural earplugs - Over-The-Head

Frequency (Hz)	63	125	250	500	1000	2000	4000	8000
Mean attenuation (dB)	22.8	20.4	17.5	16.5	20.6	31.8	36.9	34.8
Std deviation (dB)	6.4	6.3	3.5	3.8	4.6	4.8	4.9	8.3
Assumed Protection Value (dB)	16.3	14.2	14.0	12.7	16.0	27.0	32.1	26.5

SNR=21 db $\,$ H=24 db $\,$ M=16 db $\,$ L=15 db

Key

APVf = Assumed Protection Value

Mf = Mean attenuation value

sf = Standard deviation

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).

Important Notice

3M does not accept liability of any kind, be it direct or consequential (including, but not limited to, loss of profits, business and/or goodwill) arising from reliance upon any information herein provided by 3M. The user is responsible for determining the suitability of the products for their intended use. Nothing in this statement will be deemed to exclude or restrict 3M's liability for death or personal injury arising from its negligence.



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