

3M™ E-A-R™ Classic™ Disposable Earplugs

Technical Data Sheet

Product Description

3M™ E-A-R™ Classic™ disposable earplugs are designed for insertion into the ear canal to help reduce exposure to hazardous levels of noise and loud sound. These products are available in corded and uncorded version.

The uncorded version is also available in the 3M™ One Touch™ Pro Earplug Dispenser format.

3M E-A-R Classic Earplugs may be used for protection against moderate to high noise environments, providing effective protection across all test frequencies.

Key Features:

- Proprietary slow recovery polymer foam helps achieve good acoustic properties
- Cylindrical shape helps fit most ear canal sizes for reliable seal
- Low equilibrium pressure helps reduce pressure in ear canal
- Exposed cell surface texture resists movement in the ear canal thus minimising the need to often re-fit the earplug
- SNR 28dB (uncorded) and SNR 29dB (corded) – see full attenuation table
- Supplied in re-closable pillow-pack for ease of carry
- Compatible with the 3M E-A-Rfit Dual-Ear Validation System

Standard & Approval:

The E-A-R Classic is tested and CE approved against the European Standard EN352-2:2002. The product meets the Basic Safety Requirements as laid out in Annex II of the European Community Directive 89/686/EEC and has 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.

Earplugs – Proprietary slow recovery polymer foam

Cord – Recycled polymer

Attenuation values:

Corded								
Frequency (Hz)	63	125	250	500	1000	2000	4000	8000
M_f (dB)	21.7	23.7	26.1	30.4	30.1	33.8	42.6	42.1
S_f (dB)	6.3	5.6	5.2	5.7	5.3	4.6	4.0	5.7
APV_f (dB)	15.4	18.0	20.9	24.6	24.9	29.2	38.6	36.4
SNR = 29dB		H = 30dB	M = 26dB		L = 23dB			

Uncorded								
Frequency (Hz)	63	125	250	500	1000	2000	4000	8000
M_f (dB)	22.3	23.3	24.6	26.9	27.4	34.1	41.6	40.4
S_f (dB)	5.4	5.3	3.6	5.4	4.8	3.1	3.5	6.4
APV_f (dB)	16.9	18.1	20.9	21.5	22.6	30.9	38.1	34.0
SNR = 28dB		H = 30dB	M = 24dB		L = 22dB			

$$APV_f \text{ (dB)} = M_f - s_f \text{ (dB)}$$

Key:

M_f = Mean attenuation value

s_f = Standard deviation

APV_f = 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).

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.

Respiratory Protection is only effective if it is correctly selected, fitted and worn throughout the time when the wearer is exposed to respiratory contaminants. 3M offers advice on the selection of products, and training in the correct fitting and usage.

For more information on 3M products and services please contact 3M.

