

# 3M™ E-A-R™ UltraFit™ Reusable Earplugs

## Technical Data Sheet

### Product description

The E-A-R™ UltraFit™ reusable earplugs are designed for insertion into the ear canal to help reduce exposure to hazardous levels of noise. These products are available in a corded and uncorded versions.

### Features

- Unique patented tri-flange design fits a wide range of ear canal sizes
- Longer stem helps make insertion easier
- Made from soft and durable material
- One size fits the majority of wearers
- Compatible with the E-A-Rfit™ Dual Ear Validation System
- Easy to wash and re-use
- Supplied in case for ease of storage between uses
- Available in both corded and uncorded versions

### Applications

The E-A-R™ UltraFit™ earplugs are ideal for a wide range of industrial workplace and leisure environments. Examples of typical applications include:

- Automotive
- Chemical & pharmaceutical manufacture
- Construction
- Heavy engineering
- Woodworking

### Standards

These hearing protectors have been produced to comply with the requirements of the Australian /New Zealand Standard AS/NZS 1270:2002.



### Laboratory Attenuation Values

Frequency (Hz)	125	250	500	1000	2000	4000	8000
Mean (dB)	19.1	18.9	21.2	20.5	28.9	32.1	36.3
SD (dB)	8.1	8.1	9.3	5.7	6.8	10.6	11.0
Mean - SD (dB)	11.0	10.8	11.9	14.8	22.1	21.5	25.3

SLC<sub>80</sub> 18dB (Class 3)

3M strongly recommends personal fit testing of hearing protectors. Research suggests that users may receive less noise reduction than indicated by the attenuation label value(s) on the packaging due to variation in fit, fitting skill, and motivation of the user.

Hearing protector Class 3 tested to AS/NZS 1270. When selected, used and maintained as specified in AS/NZS 1269, this protector may be used in noise 95 dB(A) to less than 100dB(A), assuming an 85dB(A) criterion.

A lower criterion may require a higher protector class.

**Mean** = Mean attenuation value derived from testing in accordance with AS/NZS 1270:2002.

**SD** = Standard Deviation derived from testing in accordance with AS/NZS 1270:2002.

**Mean-SD** = Mean attenuation value minus Standard Deviation

**SLC80** = Single number rating commonly used in Australia and New Zealand to compare acoustic performance of hearing protectors. The subscript '80' indicates that in well managed hearing protector programs, the protection provided is expected to equal or exceed the SLC80 in 80% of protector-wearer noise spectrum combinations.

**Class** = A simplified process for selecting hearing protectors based on the wearers 8-hour equivalent continuous A-weighted sound pressure level.

# 3M™ E-A-R™ UltraFit™ Earplugs

## Technical datasheet



### Product description

The 3M™ E-A-R™ UltraFit™ Earplugs are reusable and designed for insertion into the ear canal to help reduce exposure to harmful levels of noise. Each set of plugs is supplied with a pre tipped cord, meaning you can insert and have corded or remove and have uncorded, giving you the option to wear as you choose.

These earplugs may be used for protection against high noise environments, providing effective protection against all test frequencies. Please refer to the attenuation table for further details.

### Key features

- ▶ SNR 29 dB
- ▶ SNR is the same for both corded and uncorded models, see full attenuation table
- ▶ Three-flange, cone shaped design may help fit a wider range of ear canal sizes
- ▶ Made from soft and durable Thermoplastic elastomer (TPE) material for optimum comfort
- ▶ Firm, long stem for easy insertion and removal
- ▶ Available in one size which fits majority of wearers
- ▶ Soft TPE polymer is washable and reusable
- ▶ Separate cord, which can be removed and re-inserted for optional uncorded or corded wear
- ▶ Supplied in re-closable packaging
- ▶ Compatible with the 3M™ E-A-Rfit™ Dual-Ear Validation System

### Standard and approval:

This product is in compliance with appropriate Directives or Regulations to fulfill the requirements for the CE and/or UKCA marking.

The full text of the Declaration of Conformity is available at the following internet address: [www.3M.com/hearing/certs](http://www.3M.com/hearing/certs).

### Important notice

**Product Selection and Use:** Many factors beyond 3M's control and uniquely within user's knowledge and control can affect the use and performance of a 3M product in a particular application. As a result, customer is solely responsible for evaluating the product and determining whether it is appropriate and suitable for customer's application, including conducting a workplace hazard assessment and reviewing all applicable national and/or European regulations and standards. Failure to properly evaluate, select, and use a 3M product in accordance with all applicable instructions and with appropriate safety equipment, or to meet all applicable safety regulations, may result in injury, sickness, death, and/or harm to property.

**Warranty, Limited Remedy, and Disclaimer:** A limitation of liability applies to the 3M product(s). For warranty statement and limitation of liability, refer to your supply agreement or the 3M terms & conditions of sale.

3M industrial and occupational products are intended, labeled, and packaged for sale to trained industrial and occupational customers for workplace use.

### Materials

Earplugs	Thermoplastic elastomer
Cord	Recycled PVC

### Nominal size range

Smallest fitted: 7 mm

Largest fitted: 12 mm

### Attenuation values:

	Frequency (Hz) <i>f</i>								H	M	L	SNR
	63	125	250	500	1000	2000	4000	8000				
Mf (dB)	26.8	27.0	26.3	27.7	28.7	32.0	37.8	41.1	32.4	28.9	27.3	31.5
Sf (dB)	3.7	4.9	4.2	4.5	4.4	3.7	4.5	4.4	2.7	3.5	3.6	3.0
APVf (dB)	23.1	22.1	22.1	23.2	24.3	28.3	33.3	36.7	30	35	24	29

#### Key:

*f* = Test frequency

Mf = Mean attenuation value

Sf = Standard deviation

APVf (Mf - Sf) = 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)

Information on Shelf life and service life can be found in the User Instructions.



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## Materials

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

Component	Material
Earplugs	Thermoplastic elastomer
Cord	PVC

## Storage

Store in an area free of contamination.

Do not leave your hearing protection device in areas or locations where it can be exposed to damage or contamination.

Sunlight is particularly damaging as UV light can have a detrimental effect on the materials the product is made from.

Chemical contamination can also have a serious effect on product integrity and decontamination after use is recommended.

Use a suitable storage container especially if left in a vehicle. This will protect the hearing protection device from damage and extend its working life.

## Ordering Information

3M Order Code	Model #	Description
70071521143	340-4001	3M™ E-A-R™ Ultrafit™ Uncorded with Storage Case
70071515798	340-4002	3M™ E-A-R™ Ultrafit™ Corded with Storage Case
70071515772	340-4004	3M™ E-A-R™ Ultrafit Polybag Corded
70071562758	393-2001-50	3M™ E-A-R™ UltraFit™ Probed Test Plug

### WARNING! Hearing Protection Products

These hearing protectors help reduce exposure to hazardous noise and other loud sounds. Misuse or failure to wear hearing protectors at all times that you are exposed to noise may result in hearing loss or injury. For proper use, see supervisor, User instructions, or call 3M TechAssist Helpline 1800 024 46.

**Important Notice:** To the extent permitted by law, 3M shall not be liable for any loss or damage including any loss of business, loss of profits, or for any indirect, special, incidental or consequential loss or damage arising from reliance upon any information herein provided by 3M. 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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