Technical
Datasheet

3M™ E-A-R™ E-A-Rsoft FX™ Roll-Down Ear Plugs

Product Description

The 3M™ E-A-Rsoft™ FX roll-down ear plugs 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.

Key Features

- Slow expanding, soft polyurethane foam for all day comfort
- Low pressure inside the ear canal for increase comfort and wearability
- Flange design allows ease of insertion and removal
- Excellent sound attenuation characteristics- SNR 39dB
- Particularly suited for low frequency noise
- Vibrant colour for ease of compliance check
- Available in both corded and uncorded version

Applications

The 3M™ E-A-Rsoft™ FX earplugs are ideal for high noise exposure levels, and are ideally suited for all frequency noise in a wide range of industrial workplace and leisure environment. Examples of typical applications include:

- Automotive
- Chemical & pharmaceutical manufacture
- Construction
- Heavy engineering
- Metal processing
- Textile manufacture
- Woodworking

Standard & Approval

The 3M™ E-A-Rsoft™ FX earplugs are tested and CE approved against the European Standard EN352-2:2002. 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, 56 Leslie Hough Way, Salford, Greater Manchester, M6 6AJ, United Kingdom (Notified Body number 0194).

Materials

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

Component	Materials
Ear plugs	Polyurethane Foam
Cord	Recycled PVC

Product Range

E-A-Rsoft ™ FX Corded

E-A-Rsoft ™ FX
Uncorded

Attenuation values
3M™ E-A-Rsoft™ FX

Frequency (Hz)	63	125	250	500	1000	2000	4000	8000
Mf (dB)	34.6	37.5	38.5	40.4	38.6	39.6	48.9	47.8
sf (dB)	5.7	6.0	5.4	5.0	4.2	2.5	3.8	3.9
APVf (dB)	28.9	31.5	33.1	35.4	34.4	37.1	45.1	43.9

SNR = 39dB H = 39dB M = 36dB L = 34dB APVf (dB) = Mf – sf (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 $L_C - L_A$ = -2dB)
M = Medium-frequency attenuation value
(predicted noise level reduction for noise with $L_C - L_A$ = +2dB)
L = Low-frequency attenuation value
(predicted noise level reduction for noise with $L_C - L_A$ = +10dB)
SNR = Single Number Rating (the value that is subtracted from the measured C-weighted sound pressure level, L_C 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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