Technical Datasheet



Product Description

The E-A-R™ UltraFit™ 14 and 20 pre-moulded earplugs are designed for insertion into the ear canal to help reduce exposure to low or moderate noise levels respectively, without feeling isolated from the workplace environment. These products are available with a removable cord.

Key Features

- Tri-flange design
- The product features filter technology to provide optimum attenuation in low to moderate noise environment.
- · Made from soft and durable material
- · One size fits the majority of wearers
- Compatible with E-A-Rfit[™] validation system
- Can be washed up to 50 times
- Supplied in re-sealable pillow-pack for ease of use

Applications

The E-A-R™ UltraFit™ 14 and 20 earplugs are ideal for low to moderate noise exposure levels. The E-A-R™ UltraFit™ 14 earplugs in particular, take the edge of low levels of harmful noise whilst allowing good speech intelligibility making them an ideal product of choice for noise exposure levels below 85dB(A). The E-A-R™ UltraFit™ 20 earplugs provide a little extra attenuation that makes them ideal for use in moderate noise environments.

These products are designed for use in a wide range of industrial workplace and leisure environments. Examples of typical applications include:

- Agriculture
- Automotive
- Busy office environment
- Chemical & pharmaceutical manufacture
- Light engineering
- Woodworking

Standard & Approval

The E-A-RTM UltraFitTM 14 and 20 pre-moulded earplugs are tested and CE approved against the European Standard prEN352-2 N. This product meets 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 | Materials |
|-----------|-------------------------|
| Earplugs | Thermoplastic elastomer |
| Cord | Recycled PVC |





Attenuation values E-A-R™ UltraFit™ 14

| Frequency (Hz) | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|-------------------|-----|-----|-----|-----|------|------|------|------|
| Mf (dB) | 3.9 | 2.9 | 4.3 | 8.3 | 18.3 | 26.9 | 31.4 | 29.9 |
| sf (dB) | 3.0 | 1.9 | 1.7 | 3.0 | 2.2 | 2.2 | 3.4 | 3.9 |
| APVf (dB) | 0.9 | 1.0 | 2.6 | 5.3 | 16.1 | 24.7 | 28.0 | 26.0 |

SNR = 14dB H = 22dB M = 10dB L = 5dB

E-A-R™ UltraFit™ 20

| Frequency (Hz) | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|-------------------|-----|-----|------|------|------|------|------|------|
| Mf (dB) | 7.2 | 9.0 | 11.9 | 17.6 | 23.9 | 28.9 | 32.1 | 35.8 |
| sf (dB) | 5.1 | 4.5 | 3.9 | 3.6 | 3.1 | 3.6 | 7.1 | 4.2 |
| APVf (dB) | 2.1 | 4.5 | 8.0 | 14.0 | 20.8 | 25.3 | 25.0 | 31.6 |

SNR = 20dB H = 25dB M = 17dB L = 10dB

Key

APVf (dB) = Mf - sf (dB)

Mf = Mean attenuation value

sf = Standard deviation

APVf = Assumed Protection Value

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 $L_c - L_a = +10 dB$)

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).

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