

A person is wearing a yellow earplug in their ear. The earplug is a Quebee EM-5002B model, which is CE certified and conforms to EN 352-1. The person is also wearing safety glasses. The background is dark and out of focus.

Quebee

EM-5002B

CE

EN 352-1

Selection of Hearing Protection

HEARING PROTECTION

Factors to Consider

To protect workers from noise-induced hearing loss, it's crucial to keep their exposure below 85 dB for eight hours. NIOSH recommends a 3 dB exchange rate, where every 3 dB increase doubles the noise and halves the safe exposure time. Regulations mandate employers to establish a hearing conservation program for employees exposed to an 8-hour average of 85 dB or higher.

Key components of an effective program encompass noise assessment, personal monitoring, noise control measures, routine audiometric testing, appropriate selection of hearing protection devices (including disposable and reusable earplugs, earmuffs, and communication headsets), comprehensive training to heighten awareness of noise hazards, and diligent record-keeping for monitoring and noise sampling. By implementing these measures, workplaces can ensure the well-being of their employees in high-noise environments.

**3M**

3M-310-1250 - Uncorded pillow pack
3M 312-1250 Uncorded Poly Bag
3M-311-1250 - Corded in Poly Bag

3M™ E-A-Rsoft™ Disposable Yellow Neon

Description

- Shaped, self-adjusting foam provides a comfortable, low-pressure seal
- Non-irritating, dermatologically safe foam
- Soft foam plugs for increased wearer comfort
- NRR 33dB

3M™ Disposable Foam Earplugs

Description

- Tapered shape to fit the ear canal comfortably
- Soft foam seals the ear comfortably
- Smooth, dirt-resistant surface for hygiene
- Comfortable for a wide range of ear sizes
- Made from hypoallergenic material
- Bright orange for high visibility
- Compatible with ear muffs for added protection
- Can be used alongside other personal protective equipment
- NRR 29dB

**3M**

3M-1110 - Corded
3M-1100 - Uncorded

**3M**

**3M-310-1001 -
Uncorded Pillow Pack**

3M™ Classic™ Disposable Earplugs

Description

- Slow-recovery foam allows the user to wear the earplug easily
- Bright yellow color allows for a quick visual compliance check
- Dermatologically safe foam is non-irritating, non-flammable, and moisture-resistant
- NRR 29dB



3M™ Reusable Earplugs

Description

- New softer formulation provides added comfort
- New finger grip design makes insertion easier
- Multi-flanged plugs fit securely into the ear canal
- Soft, elastic material conforms to a wide range of ear sizes comfortably
- No need to roll plugs down before inserting, ideal for dusty, dirty situations
- Can be washed and reused many times
- Soft, cloth cord lays flat
- Includes a storage case that keeps plugs clean and protected (1271 only)
- NRR 24dB



3M-1270 - Corded with polybag
3M-1271 - Corded with carry case
3M-1271P - Corded with carry case



3M-340-4002- In carrying case
3M-340-4004- In poly bag earplug

3M™ E-A-Rsoft™ UltraFit™ Corded Reusable Earplugs

Description

- Patented, premolded, triple-flange design inserts easily
- No rolling or sizing needed to achieve a comfortable, protective fit
- Hypoallergenic polymer is washable and reusable
- Carrying case keeps plugs clean and accessible for reuse
- NRR 25dB



Quebee Reusable Earplugs corded and uncorded With carrying case



**Uncorded Reusable Earplug
with carrying case**

EC-2018A

Description

Quebee Silicon reusable Earplugs offer SNR 33dB and NRR 26dB attenuation protection. This new translucent Christmas tree 3-layer design increases user comfort and protection. The high-visibility stem allows for one-handed insertion and easy visibility from a distance for compliance.

Comfortable

- ▶ Made of pure silicon material for low pressure inside the ear
- ▶ Reusable and maintains its shape even after extended use
- ▶ Resistant to humidity and sweat, helping prevent moisture buildup in the ear canal
- ▶ The 3-layer design allows for a secure fit in the ear canal
- ▶ Designed to fit the majority of ear canals, providing premium comfort and protection

Convenient

- ▶ The Christmas tree design fits most ear canals, making the plugs easier to use

Compatibility

- ▶ Designed to be compatible with earmuffs or other PPE

Tested according to EN352-2:2002 and ANSI S3.19-1974 standards

Attenuation Data H-34dB M-30dB L-27dB

ANSI S3.19-1974

NRR 26dB

Frequency (HZ)	125	250	500	1000	2000	4000	8000	SNR
Mean Attenuation (dB)	30.8	27.7	30.8	34.7	36.9	37.1	44.0	33dB
Standard Deviation (dB)	3.8	4.1	4.3	3.2	3.5	4.3	4.5	
APV (dB)	27.1	23.6	26.5	31.5	33.4	32.8	39.5	



**Corded Reusable Earplug
with carrying case**

EC-2018A-C



Quebee Disposable Earplugs

Description

Quebee PU Foam Earplugs offer SNR 37dB and NRR 33dB attenuation protection. The new tapered shape and premium memory PU ensure increased user comfort and protection.

Comfortable

- ▶ Soft PU foam material for low pressure inside the ear
- ▶ Slow rebound rate allows for a full attachment to the ear canal
- ▶ Designed to fit the majority of ear canals with premium comfort and protection

Convenient

- ▶ Bullet design fits most ear canals, making the plugs easier to use



Uncorded Disposable Earplug

EC-1003A

Corded Disposable Earplug

EC-1003A

ANSI S3.19-1974

NRR 33dB

Tested according to EN352-2:2020 standards
Attenuation Data H-37dB M-35dB L-30dB

Frequency (HZ)	125	250	500	1000	2000	4000	8000	SNR
Mean Attenuation (dB)	28.7	32.2	39.6	40.5	37.9	42.2	46.3	37dB
Standard Deviation (dB)	3.6	5.2	5.4	4.3	2.9	3.1	5.4	
APV (dB)	25.1	27.0	34.2	36.2	35.0	39.1	40.9	

**3M**

3M™ One Touch™ Pro Earplug Dispenser

Description

- Accurately dispenses one earplug at a time
- Dispenses earplugs directly into the hand
- Made of durable ABS plastic for tough environments
- Can be free-standing or wall-mounted
- Shields earplugs from wind and rain
- Mounting holes designed to fit a variety of competitive dispensers

3M-391-0000

3M™ E-A-Rsoft™ Yellow Neon™ One Touch™ Refill Uncorded Earplugs, Hearing Conservation

Description

- Refill container for the One Touch™ dispenser. One gentle turn delivers uncorded foam earplugs
- No packaging waste with each pair
- NRR 33dB

**3M**

3M-391-1004



Quebee Earmuffs are designed to provide a moderate to high level of attenuation that meets the needs of many industrial applications where high levels of noise may be encountered. When correctly worn, these products can help reduce exposure to hazardous levels of noise.



EM-5002A

Headband Earmuff

Description

- Headband Earmuff with soft foam-filled cushions
- Lightweight ear cups
- PU-covered headband for extended comfort
- Provides a good seal with high noise reduction

Compliance

CE EN352-1:2020, SNR 34dB
 H=36dB, M=32dB, L=24dB
 ANSI S3.19-1974, NRR 27dB

Headband & Foldable Earmuff

Description

- Foldable Headband Earmuff with soft foam-filled cushions
- Lightweight ear cups
- Padded headband for extended comfort
- Provides a good seal with high noise reduction

Compliance

CE EN352-1:2020, SNR 33dB
 H=35dB, M=32dB, L=23dB
 ANSI S3.19-1974, NRR 26dB



EM-5002B



EM-5002C

Neckband Earmuff

Description

- Neckband Earmuff with soft foam-filled cushions
- Lightweight ear cups
- Provides a good seal with high noise reduction

Compliance

CE EN352-1:2002, SNR 31dB
 H=33dB, M=29dB, L=22dB

Helmet attachable Earmuff

Description

- Helmet Attachable Earmuff with soft foam-filled cushions
- Lightweight ear cups
- Provides a good seal with high noise reduction

Compliance

CCE EN352-3:2002, SNR 30dB
 H=31dB, M=28dB, L=21dB
 ANSI S3.19-1974, NRR 22dB



EM-5002D



3M™ Peltor™ Optime™ 95 Over-the-Head Earmuffs

Description

- Stainless steel construction resists bending and warping
- Ear cup pivot points tilt for optimum comfort and efficiency
- Lightweight with liquid/foam-filled earmuff cushions
- NRR 21dB

3M™ Peltor™ Optime™ 95 Behind-the-Head Earmuffs

Description

- Multi-position designs available in headband, neckband, helmet-attachable, and folding models.
- Stainless steel construction resists bending and warping
- Ear cup pivot points tilt for optimum comfort and efficiency
- Ultra-light with liquid/foam-filled earmuff cushions
- NRR 21dB



3M™ Peltor™ Optime™ 95 Over-the-Head Folding Earmuffs

Description

- Folding cups fold up into the headband for compact storage
- Stainless steel construction resists bending and warping
- Ear cup pivot points tilt for optimum comfort and efficiency
- Ultra-light with liquid/foam-filled earmuff cushions
- NRR 21dB

3M™ Peltor™ Optime™ 95 Cap-Mount Earmuffs

Description

- Universal mounting attachment fits most hard hats
- Stainless steel construction resists bending and warping
- Ear cup pivot points tilt for optimum comfort and efficiency
- Ultra-light with liquid/foam-filled earmuff cushions
- NRR 21dB





3M-H7A

3M

3M™ Peltor™ Optime™ 101 Over-the-Head

Description

- Stainless steel headband distributes weight for a low-pressure fit
- Ear cup pivot points tilt for optimum comfort and efficiency
- Liquid/foam-filled earmuff cushions
- NRR 27dB

3M™ Peltor™ Optime™ 101 Behind-the-Head Earmuffs

Description

- Neckband style
- Excellent attenuation at low and high frequencies
- Enables a safe working environment for longer periods of time, up to 101 dBA
- Two low mounting points provide great comfort
- #1 selling earmuff in the world
- NRR 26dB.



3M-H7B

3M

3M-H7P3E

3M

3M™ Peltor™ Optime™ 101 Cap-Mount Earmuffs

Description

- Cap-mounted design allows for easy use with most hard hats
- Liquid/foam-filled ear cushions
- NRR 24dB

**3M**

3M-H9A

3M™ Peltor™ Optime™ 98 Over the Head Earmuffs

Description

- For noise levels up to 98 dBA
- Stainless steel construction resists bending and warping
- Ear cup pivot points tilt for optimum comfort and efficiency
- Ultra-light with liquid/foam earmuff cushions
- NRR 25dB

3M

3M™ Peltor™ Optime™ 98 Cap-Mount Earmuffs

Description

- For noise levels up to 98 dBA
- Universal mounting attachment fits most hard hats
- Ear cup pivot points tilt for optimum comfort and efficiency
- Ultra-light with liquid/foam-filled earmuff cushions
- NRR 23dB



3M-H9P3E

**3M**

3M™ Peltor™ Optime™ 105 Over the Head Earmuff

Description

- For noise levels up to 105 dBA
- Proprietary Twin-Cup™ design has soft, foam-filled earmuffs
- Stainless steel headband distributes weight for a low-pressure fit
- Ear cup pivot points tilt for optimum comfort and efficiency
- Liquid/foam-filled earmuff cushions
- NRR 30dB

3M-H10A

3M™ Peltor™ Optime™ 105 Behind-the-Head Earmuffs

Description

- Patented Twin-Cup™ design has soft, foam-filled earmuff cushions
- Behind-the-head design allows for easy use with hard hats
- Liquid/foam-filled earmuff cushions
- NRR 29dB

**3M**

3M-H10B

**3M**

3M™ Peltor™ Optime™ 105 Cap-Mount Earmuffs

Description

- For noise levels up to 105 dBA
- Proprietary Twin-Cup™ design has soft, foam-filled earmuffs
- Ear cup pivot points that tilt for optimum comfort and efficiency
- Easy cap-mount design
- Liquid/foam-filled earmuff cushions
- NRR 27dB

3M-H10P3E

Accessories

3M™ Peltor™ Earmuff Replacement Hygiene

Description

- Extend the life of earmuffs with one pair of replacement cushions and one pair of dampers
- Hygiene kit for H6, H7, H9 and H10 series

**3M**

3M-HY3, 3M-HY7, 3M-HY10



3M™ Peltor™ X1 earmuffs

- ▶ Electrically insulated (dielectric) wire headband on model X1A
- ▶ Earcups tilt for optimum comfort and efficiency
- ▶ Twin headband design helps reduce heat buildup with a good fit and balance
- ▶ Wire headband offers comfortable pressure during prolonged usage
- ▶ Lightweight, low-profile earcups for improved compatibility with other PPE

**Standard attenuation,
slim design**

NRR 22dB



Earcup Options	Electrically Insulated		Hard Hat-Attached
X1 Ultra-slim earmuffs for low-noise environments	X1A NRR 22dB	X1P5E NRR 21dB	X1P3E NRR 21dB

Performance
(Octave Band Attenuation Data - ANSI S3.19-1974)

Headband Models: X1A Band Position: Over-the-Head

Model	Frequency (Hz)	125	250	500	1000	2000	3150	4000	6300	8000	NRR	CSA Class
X1A	Mean Attenuation (dB)	16.0	18.3	27.7	37.6	35.1	42.2	41.4	39.4	39.3	22 dB	A
	Standard Deviation (dB)	5.2	3.1	3.0	3.5	2.8	2.8	2.6	2.6	3.8		

3M™ Peltor™ X2 earmuffs

- ▶ Electrically insulated (dielectric) wire headband on model X2A
- ▶ Earcups tilt for optimum comfort and efficiency
- ▶ Twin headband design helps reduce heat buildup with good fit and balance
- ▶ Wire headband offers comfortable pressure during prolonged usage
- ▶ Lightweight, low-profile earmuffs are ideal for a variety of noisy applications

**Medium attenuation,
slim design**

NRR 24dB



Earcup Options	Electrically Insulated		Hard Hat-Attached
X2 Lightweight earmuffs for low- moderate noise environments	X2A NRR 24dB	X2P5E NRR 24dB	X2P3E NRR 24dB

Performance
(Octave Band Attenuation Data - ANSI S3.19-1974)

Headband Models: X2A Band Position: Over-the-Head

Model	Frequency (Hz)	125	250	500	1000	2000	3150	4000	6300	8000	NRR	CSA Class
X2A	Mean Attenuation (dB)	14.9	21.6	31.8	41.0	36.7	39.1	38.5	39.0	39.0	24 dB	A
	Standard Deviation (dB)	4.2	3.3	2.3	2.5	3.0	2.4	2.0	2.8	3.4		



3M™ Peltor™ X3 earmuffs

- ▶ Electrically insulated (dielectric) wire headband on model X3A
- ▶ Earcups tilt for optimum comfort and efficiency
- ▶ Twin headband design helps reduce heat buildup with a good fit and balance
- ▶ Wire headband offers comfortable pressure during prolonged usage
- ▶ Lightweight earmuffs designed for moderate to high noise exposure applications
- ▶ Newly-designed spacer improves attenuation without excess bulk or weight of a double cup design

**High attenuation,
low weight**

NRR 28dB



Earcup Options		Electrically Insulated		Hard Hat-Attached	
	X3				
High-protection earmuffs for moderate to high noise environments		X3A NRR 28dB	X3P5E NRR 25dB	X3P3E NRR 25dB	

Performance
(Octave Band Attenuation Data - ANSI S3.19-1974)

Headband Models: X3A, X3A, X3P5E, X3P3E
Band Position: Over-the-Head

Model	Frequency (Hz)	125	250	500	1000	2000	3150	4000	6300	8000	NRR	CSA Class
X3A	Mean Attenuation (dB)	23.4	27.7	29.4	42.5	38.8	39.3	42.3	39.5	39.5	28 dB	AL
	Standard Deviation (dB)	3.0	2.1	3.1	2.6	2.7	4.0	3.3	2.6	2.8		

3M™ Peltor™ X4 earmuffs

- ▶ Electrically insulated (dielectric) wire headband on model X4A
- ▶ Earcups tilt for optimum comfort and efficiency
- ▶ Twin headband design helps reduce heat buildup with good fit and balance
- ▶ Wire headband offers comfortable pressure during prolonged usage
- ▶ Lightweight earmuff recommended for moderate to high-noise exposure applications
- ▶ Low-profile cup design for improved compatibility with other PPE
- ▶ Newly-designed spacer improves attenuation without the excess bulk or weight of a double cup design

**Extremely slim,
high performance**

NRR 27dB



Earcup Options		Electrically Insulated		Hard Hat-Attached	
	X4				
High protection earmuffs for moderate- high noise environments		X4A NRR 27dB	X4P5E NRR 25dB	X4P3E NRR 25dB	

Performance
(Octave Band Attenuation Data - ANSI S3.19-1974)

Headband Models: X4A, X4A, X4P5E, X4P3E
Band Position: Over-the-Head

Model	Frequency (Hz)	125	250	500	1000	2000	3150	4000	6300	8000	NRR	CSA Class
X4A	Mean Attenuation (dB)	20.5	24.1	32.8	40.7	37.6	44.5	45.4	42.4	42.3	27 dB	AL
	Standard Deviation (dB)	4.6	3.4	1.9	2.8	2.9	3.1	2.5	3.1	3.0		



3M™ Peltor™ X5 earmuffs


- ▶ Electrically insulated (dielectric) wire headband on model X5A
- ▶ Earcups tilt for optimum comfort and efficiency
- ▶ Twin headband design helps reduce heat buildup with a good fit and balance
- ▶ Wire headband offers comfortable pressure during prolonged usage
- ▶ Very high attenuation earmuffs recommended for high-noise exposure applications
- ▶ Despite larger earcups, the product is lightweight with excellent balance and comfort
- ▶ Newly-designed spacer improves attenuation without excess bulk or weight
- ▶ NRR 31dB ± the highest of any earmuff on the market

Unparalleled attenuation without the need for double protection involving ear muffs and ear plugs

NRR 31dB




Earcup Options



X5
High protection earmuffs for high noise environments


Electrically Insulated



X5A
NRR 31dB

X5P5E
NRR 31dB

Hard Hat-Attached



X5P3E
NRR 31dB

Performance
(Octave Band Attenuation Data - ANSI S3.19-1974)

Headband Models: Over-the-Head

Model	Frequency (Hz)	125	250	500	1000	2000	3150	4000	6300	8000	NRR	CSA Class
X5A	Mean Attenuation (dB)	23.9	30.5	41.1	43.0	38.0	43.1	44.0	41.1	40.3	31 dB	AL
	Standard Deviation (dB)	4.1	2.2	2.8	2.9	2.7	2.9	2.4	2.6	2.2		

3M™ Peltor's Highest Levels of Comfort, Durability, and Protection

3M™ Peltor™ X Series- A New Standard in DESIGN, COMFORT, and ATTENUATIONS TECHNIQUES
 3M developed the new 3M™ Peltor™ X Series earmuffs based on these three pillars. In addition to simplicity of use and ease of identification, the new range of earmuffs now sets the new reference point in terms of over-the-ear protection.



3M™ Peltor™ Optime: A market reference

3M™ Peltor's highest levels of Comfort, Durability, and Protection

3M Hearing Protection Solutions made innovatively easy