Technical Datasheet



3M[™] Industrial Safety Helmet G3000

Product Description

The 3M[™] Industrial Safety Helmet G3000 is designed to offer reliable head protection in tough environments. It's rounded shape reduces the likelihood for snagging. The short brim allows for a wider field of view and the design of helmet allows for "back to front" use (with the harness rotated 180°) for improved performance in tight spaces.

Key Features

- Uvicator[™] indicates when it is time to replace the helmet due to UV exposure
- Available with ratchet for size adjustment
- Ventilated versions available for increased comfort
- Front surface suitable for attaching a brand name or logo
- Replaceable leather or plastic sweatband
- Harness can be rotated 180° to wear helmet "back to front"
- Electrical insulated version available according to EN 50365
- Approved for use at -30°C
- · Wide range of accessories available
- Compatible with a wide range of 3M[™] Peltor[™] Hearing Protection

Applications

- Construction
- Electrical work
- Forestry
- Industry
- · When lamp attachment is required

Testing and Approval

The 3M[™] Industrial Safety Helmets G3000 meets the requirements of the PPE Directive (89/686/EEC) and are thus CE marked. The product has been tested and approved by SP, Swedish National Testing and Research Institute, Box 857 SE-501 15 Borås Sweden (Notified body number 0402).

The product has been tested and approved in accordance with EN 397:1995, EN 397:1995/A1:2000 and certain versions of the G3000 in accordance with EN 50365:2002.

Accessories

- GH1 Chinstrap
- GH4 Chinstrap
- HYG3 Sweatband plastic (standard)
- HYG4 Sweatband leather
- GR3C Rain shield
- V6* Integrated eyewear
- V1*/V2*/V4*/V5* visors
- GR2B Visor seal for V1* and V2*
- FP8228/1 Reflex kit (4 pcs)

Use Limitation

- Never modify or alter the safety helmet
- Do not use this safety helmet against hazards other than those specified in the user instruction.
- Use, store and maintain the safety helmet in accordance with the user instruction.



Materials

Component	Material
Shell	UV stabilized ABS
Headband	LDPE
Cradle	Polyester
Sweatband	Leather or synthetic

Weight

Safety helmet G3000 incl. standard fitting G2M weighs 360g.

Use and Storage

Temperature range for usage	-30°C to +50°C
Recommended storage conditions	+3°C to +40°C, <85% humidity
Maximum recommended shelf life	2-5 years depending on the work environment and usage conditions

Product Configuration

Helmet Shell

G3000	With ventilation
G3001	Without ventilation

Fitting Sizes

Pinlock Harness	54-62cm
Ratchet Harness	53-62cm

Suspension

G2C	4 Point Pinlock headband with synthetic sweatband
G2D	4 Point Pinlock headband with leather sweatband
G2M	4 Point Ratchet headband with leather sweatband
G2N	4 Point Ratchet headband with plastic sweatband

Product Classification

Additional Protection Characteristics

Low Temperatures	-10°C	1	-20°C	1	-30°C	1
Electrical Properties	440Vac*	✓	EN50365*	1		
High Temperatures	+50°C	✓	+150°C	×	Molten Metal	✓

^{*}Electrical Properties available on non-vented shell models G3001

Important Notice

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3M[™] Head & Face Technical Datasheet



3M[™] V5 Linkage system for Helmet

Product desription

The $3M^{\text{TM}}$ V5 Linkage system can be mounted onto the $3M^{\text{TM}}$ G22 or $3M^{\text{TM}}$ G3000 Industrial Safety helmet series to allow attachment of a range of faceshields.

Key Features:

- Compatible with 3M[™] G22 and 3M[™] G3000 industrial safety helmet series
- Three different mesh face shields available
- Mesh Face shields available as class F (high speed particles low energy) or S (increased robustness)

Applications

- Gardening
- Forestry

Use and storage:

Temperature range for usage: $-5^{\circ}C - +55^{\circ}C$

Recommended storage conditions: -20° C - +55° C, <85% humidity

Recommended maximum shelf life: 5 years.

Use limitation

- Never modify or alter this product
- Do not use this product against hazards other than those specified
- Refer to the relevant user instruction for further information







The new "Snap-in" feature makes it quick and easy to combine the face

shield to the face shield holder.



3M[™] Head & Face Technical Datasheet

Standards and Approval:

 $The \ V5 \ Linkage \ system \ has \ been \ shown \ to \ meet \ the \ basic \ safety \ requirements \ of \ the \ European \ Directive \ 89/686/EEC \ and \ is \ thus \ CE \ marked.$

The mesh face shields have been tested and approved in accordance with EN1731:2006.

The product has been examined by FIOH, Finnish Institute of Occupational Health, Topeliuksenkatu 41 a A, FI-00250, Helsinki, Finland Notified body #0403.

Model	European Standard	Symbol	Field of use	Mechanical Strength
V5	EN1731:2006	F	High speed particles	Low energy impact (45m/s)

Model	European Standard	Symbol	Field of use	Mechanical Strength
5B	EN1731:2006	F	High speed particles	Low energy impact (45m/s)
5C-1	EN1731:2006	S	Basic Use	Increased robustness
5J-1	EN1731:2006	S	Basic Use	Increased robustness

If the face shield and the frame are not both marked with the same symbol, the lowest level applies to the complete face protector.

Technical Specification:

The linkage system can carry clear face shields as well as mesh face shields.

Model	Material(s):	Mesh dimension:	Light reduction	Weight:	Colour:
5B	Polyamide mesh	ø 0,3 1,0 x 1,0 mm	45%	45 g	black
5C-1	Stainless steel mesh	ø 0,24 1,8 x 2,5 mm	24%	54 g	black
5J-1	Etched stainless steel mesh	Area 1: 4,0x1,5x0,15 mm Area 2: 3,8x1,4x0,15 mm Area 3: 3,7x1,3x0,15 mm	Area 1: 17% Area 2: 28% Area 3: 37%	53 g	black

For polycarbonate face shields see specific Technical data sheet

Model	Material(s):	Weight:	Colour:
V5	PA66	66 g (w/o face shield)	Black

Spare Parts and Accessories:

Product code	Description
5B	Face shield, Polyamide mesh
5C-1	Stainless steel mesh
5J-1	Etched stainless steel mesh
P3EV/2	Helmet attachment w/o muffs
3M ld: XH001651484	**

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Afdeling Veiligheidsproducten

3M Nederland B.V. www.3MSafety.nl

Technical Datasheet Peltor™ Optime™ II



Product Description

The Peltor Optime II range of passive earmuffs is available in headband, neckband, foldable or helmet mounted versions. These products 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 selected and worn these products help reduce exposure to hazardous levels of noise and loud sounds.

The helmet mounted version is designed to fit a wide range of industrial safety helmets (see below for further details).

NOTE: Two options are available in the Optime II range; high visibility and dielectric.

Key Features

- Modern, stylish slim line cup design
- Liquid sealing rings for improved comfort
- Unique low profile headband design helps maintain constant pressure thus providing confidence in protection
- Large space inside cup helps reduce moisture and heat build-up
- Soft wide cushions help reduce pressure around the ears and improve comfort and wearability
- Easy to replace cushions and inserts help keep them hygienically clean
- Easy to understand attenuation symbol to help ensure correct product selection
- Helmet mounted version fits directly to many industrial safety helmets without the need for an adapter.

Helmet mounted approved combination:

Helmet Manufacturer	Model	Combination size range according to EN352-3	
		P3 Adaptor	H520 (Optime II)
3M	1465	E	NL
Auboueix	Brennus	F	SNL
Auboueix	Fondelec	F	SNL
Auboueix	Iris	E	NL
Auboueix	Iris 2	E	NL
Sofop Taliaplast	Oceanic	E	NL
Sofop Taliaplast	Opus	E	NL
Berendsen Safety	Balance HD	N	SNL
Centurion	1125/ARCO Plus	Н	SNL
Centurion	1100/ARCO Type 2	Н	SNL
Centurion	1540/ARCO	A	NL
Evert Larsson	Robust	E	SNL
Evert Larsson	Balance	E	NL
Evert Larsson	Balance AC	E	NL
Kemira	Top Cap	A	SNL
LAS	LP2002	E	SNL
LAS	LP2006	E	SNL
MSA	Super V-Gard II	E	SNL
MSA	V-Gard	E	SNL
Peltor	G2000	K,E	SNL
Peltor	G22 (Basic Set)	E	SNL

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*Protector Style 300	includes all	300-versions	of this helmet.

Helmet Manufacturer	Model	Combination EN352-3	size range according to	
		P3 Adaptor	H520 (Optime II)	
Peltor	G3000	E	SNL	
Petzl	Vertex	E	SNL	
Protector	Style 300*	E	SNL	
Protector	Style 600	G	SNL	
Protector	Tuffmaster II	E,G	NL	
Romer	Bravo 2 Nomaz	В	SNL	
Romer	Marcus Top 2 Atlas Nomaz	В	SNL	
Romer	N2 Atlas Nomaz	BB	SNL	
Romer	Profi Expo	E	SNL	
Romer	Profi Nomaz	E	SNL	
Romer	Top Expo Atlas	В	SNL	
Schuberth	BEN	BB	SNL	
Schuberth	BER80/WPC80	EA	SNL	
Schuberth	BER S	E	SNL	
Schuberth	BOPR	В	SNL	
Schuberth	PIONIER	В	SNL	
Schuberth	SH91/WP91	EB	SNL	
Schuberth	SW1	EB	NL	
Uvex	Airwing	E	SNL	
Voss	Inap 88	E	SNL	
Voss	Inap Master	E	NL	
Voss	Inap Star	E	NL	
Voss	Inap PCG	G	NL	

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Applications

The Peltor Optime II range of earmuffs is ideal for protection against noise arising from a wide range of applications in the workplace and leisure activities. Examples of typical applications include:-

- **Airports**
- Automotive
- Cement manufacture Construction
- Chemical & pharmaceutical manufacture
- Construction
- Heavy engineering
- Metal processing
- Printing
- Textile manufacture
- Woodworking

Standard & Approval

The Peltor Optime II range or earmuffs has been tested and CE approved against the European Standard EN352-1:1993 (headband, neckband and foldable version) and EN352-3:2002 (helmet mounted version). These products meet the Basic Safety Requirements as laid out in Annex II of the European Community Directive 89/686/EEC. These products have been examined at the design stage by the Finnish Institute of Occupational Health (FIOH), Topeliuksenkatu 41aA, FIN- 00250 Helsinki, Finland (Notified Body number 0403).

Materials

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

	Component	Material
	Headband/Neckband/Foldable	Stainless Steel Wire, PVC, Acetal
Headband, Neckband and Foldable version	Headband padding	PVC
	Cups	ABS
	Inserts	Polyether
	Cushions	Polyether
	Cushion cover	PVC
	Helmet attachment arm	Stainless Steel Wire, PVC, Acetal, Polyamid
	Cups	ABS
Helmet mounted version	Inserts	Polyether
	Cushions	Polyether
	Cushion cover	PVC

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Attenuation values

Optime II Headband Version (H520A)

Frequency (Hz)	63	125	250	500	1000	2000	4000	8000
Mf (dB)	16.2	14.6	20.2	32.5	39.3	36.4	34.4	40.2
sf (dB)	1.9	1.6	2.5	2.3	2.1	2.4	4.0	2.3
APVf (dB)	14.3	13.0	17.7	30.2	37.2	34.0	30.4	37.9



H = 34dB

M = 29dB

L = 20dB

Optime II Neckband Version (H520B)

Frequency (Hz)	63	125	250	500	1000	2000	4000	8000
Mf (dB)	15.9	14.7	20.4	32.3	39.6	36.2	35.4	40.2
sf (dB)	2.1	1.8	2.6	2.5	2.2	2.4	4.2	2.4
APVf (dB)	13.8	12.9	17.8	29.8	37.4	33.8	31.2	37.8



H = 34dB

M = 29dB

L = 20dB

Optime II Foldable Version (H520F)

Frequency (Hz)	63	125	250	500	1000	2000	4000	8000
Mf (dB)	16.1	14.5	20.3	32.6	39.1	35.1	34.7	39.8
sf (dB)	2.0	1.8	2.6	2.4	2.5	2.3	2.7	2.5
APVf (dB)	14.1	12.7	17.7	30.2	36.6	32.8	32.0	37.3



H = 34dB

M = 28dB

L = 20dB

Optime II Helmet Mounted Version (H520P3)

Frequency (Hz)	63	125	250	500	1000	2000	4000	8000
Mf (dB)	15.1	14.1	19.4	32.0	39.9	36.2	35.4	39.2
sf (dB)	2.1	2.3	2.7	2.7	2.4	2.6	4.4	2.6
APVf (dB)	13.0	11.8	16.7	29.3	37.5	33.6	31.0	36.6

SNR = 30dB

H = 34dB

M = 28dB

L = 19dB









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Accessories/Replacement Parts

The cushions and inserts on the Optime range II can be replaced with the HY52 Hygiene Kit for improved comfort and reassured protection.

The HY100A and HY100A-01 Hygiene Pads can be placed on the cushions to help absorb moisture and sweat.

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).

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