

SECURE™

PROFESSIONAL HEARING PROTECTION



Helberg

Since 1962

Experience Life With All Senses

Every day thousands of people are being exposed to dangerous noise levels and eye or face hazards at work or in their leisure time. The understanding and awareness of hearing protection and face protection is increasing all the time and with this comes a well needed boost in the quality demands of personal protection products.

Hellberg Safety is a professional supplier of earmuffs, face protection, and communication solutions for personal protection. With knowledge, experience and future technology Hellberg offers solutions which increases our partners attractiveness in the personal protective equipment market and contributes to end-users wellbeing in their working environments.

At Hellberg Safety we only use high quality materials tested in our own laboratory for optimal performance. The comfort, design appeal and overall user acceptance are independently tested in "real-life" situations, all to ensure you get a product that is comfortable, safe and reliable in any situation or environment.

The SECURE™ series features everything from standard passive earmuffs to advanced electronic headsets. Choose from various types of hearing protection in different protection levels clearly indicated with bright safety colours for easy identification and selection. With its modern eye catching design and glossy finish, SECURE™ appeals to all generations of professional users with high demands of quality, performance and design.

The SECURE™ products are of course fully compatible with SAFE™ Face Protection System by Hellberg Safety. The visors and carriers are ergonomically designed to be practical and effective and with one simple operation you can attached a visor to your earmuff or safety helmet.





SECURE™

ELECTRONIC HEARING PROTECTION

SECURE™ electronics offers a variety of advanced electronic earmuffs to suit many different work environments. The Level dependent system allows you to stay in contact with your surroundings, hear warning signals and other important information while being protected from hazardous noise. By listening to AM/FM radio your motivation will increase and the work tasks gets done more efficient.

The latest technology, modern design, comfort and quality together with great performance appeals to all generations of professional users.

REACT



HEARING PROTECTION WITH AM/FM RADIO AND LEVEL DEPENDENT SYSTEM

With React you can listen to AM/FM radio and communicate with your colleagues while still being protected from harmful noise. Level Dependent microphones in each earcup ensure excellent directional hearing, offers natural sounds and enable you to hear conversations, warning signals and other important information without compromising protection. Easy to reach controls let you manually tune the AM/FM radio accurately.

React is flexible to your situation. As the Level Dependent and radio functions are controlled independently you can tailor your hearing environment for perfect safety, operation and enjoyment. For optimal safety communication radios can be connected via the external sound input as well as MP3 players and other common devices.

MANUAL TUNING AND AUTOMATIC FREQUENCY CONTROL

Easy to tune accurately and locks onto the desired radio station

ERGONOMICALLY PLACED RUBBER COATED KNOBS

Easy to reach and offers good grip even when wearing gloves

LEVEL DEPENDENT MICROPHONES

Flush mounted microphones in each earcup ensure excellent directional hearing and spatial awareness

ELECTRONIC PROTECTION SYSTEM

Any sound reproduced through the speakers are limited to a safe level

SLIM PROFILE DESIGN

Increased stability and reduces risk of snagging in confined areas



APPLICATIONS

React can be used for a variety of applications. The main purpose of the Level Dependent functions is to protect against impulsive or intermittent hazardous noise whilst allowing situational awareness. The radio is suitable particularly for monotonous and stationary work tasks in noisy areas. The purpose of the radio is to increase motivation and efficiency.

TECHNICAL DATA

Batteries	2 x 1,5 V AA (minimum 120 hours of use)
Weight	Headband 382g, Cap mounted 412g
Sound reproduction	Stereo
Max level on electrical audio input	263 mV
Sound level limit (EPS)	max. 82dB
Amplification	max. 8 dB (primarily in freq. range 500-3k Hz - human speech area)
Radio frequency range	FM: 88-108 MHz, AM: 540-1700 KHz

MATERIAL DATA

Headband & Helmet arm	POM
Spring housing	POM 10% gf & steel spring
Slot adaptor	PA 66 10% gf
Earcups	ABS
Ear cushion	Polyether & PVC-foil
Headband cushion	Polyether & lycra
Foam liner (sound absorber)	Polyether
Knobs	ABS & TPE
Grummets	TPE

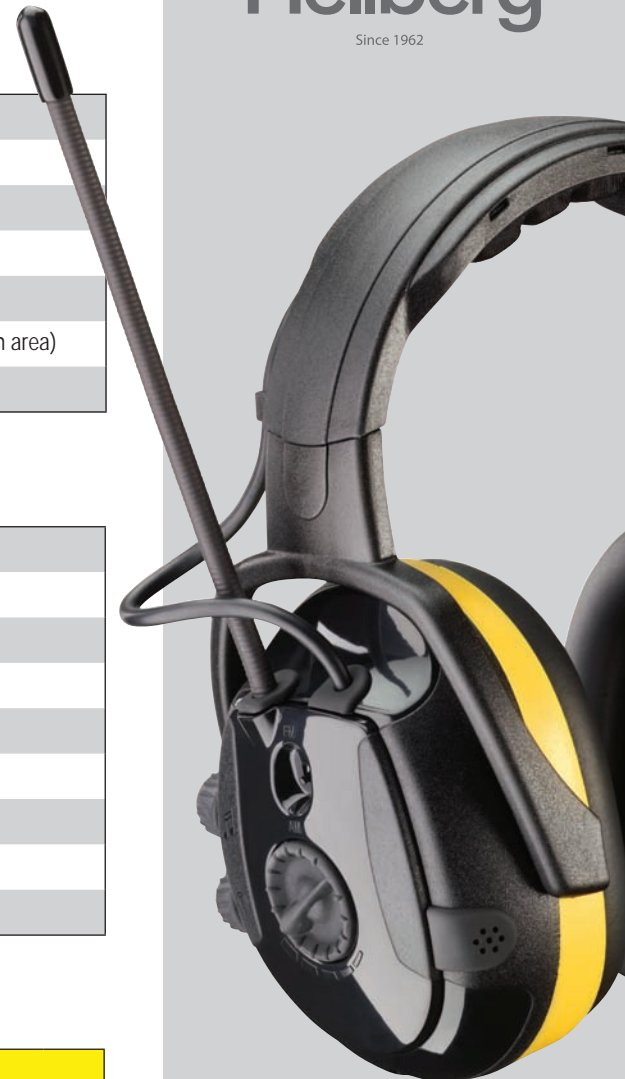
ATTENUATION DATA

46002-001 REACT Headband, EN 352-1:2002, Weight 382g, PZT GmbH Notified Body: 1974												
Frequency Hz	63	125	250	500	1000	2000	4000	8000	H	M	L	SNR
Mean Attenuation	21,0	18,4	21,1	27,7	36,9	36,1	42,1	38,8				
Std. dev	6,3	4,5	4,2	3,5	4,0	3,6	3,5	5,4	34	27	20	30
APV	14,7	13,9	16,9	24,2	32,9	32,5	38,6	33,4				

46102-001 REACT Cap mounted, EN 352-3:2002, Weight 412g, PZT GmbH Notified Body: 1974												
Frequency Hz	63	125	250	500	1000	2000	4000	8000	H	M	L	SNR
Mean Attenuation	17,8	16,3	19,5	26,9	34,3	33,8	41,8	37,4				
Std. dev	4,2	4,0	3,2	3,1	4,0	2,9	3,3	3,8	33	26	19	29
APV	13,6	12,3	16,3	23,8	30,3	30,9	38,5	33,6				

46002-001 REACT Headband, ANSI S3.19-1974, Weight 13.48 oz, CSA A										
Frequency Hz	125	250	500	1000	2000	3150	4000	6300	8000	NRR
Mean Attenuation	19.9	21.8	27.7	35.4	36.9	39.3	43.1	43.2	42.1	24
Std. dev	4.1	2.5	2.8	4.1	3.9	4.6	4.6	3.1	3.1	

46102-001 REACT Cap mounted, ANSI S3.19-1974, Weight 14.53 oz, CSA A										
Frequency Hz	125	250	500	1000	2000	3150	4000	6300	8000	NRR
Mean Attenuation	17.4	19.5	27.3	32.6	34.0	36.6	39.3	42.5	40.1	23
Std. dev	3.5	2.4	3.1	3.5	2.7	3.5	3.4	4.1	4.7	



ACTIVE



HEARING PROTECTION WITH LEVEL DEPENDENT SYSTEM

Active allows you to communicate with your colleagues, hear warning signals and other important information while protected from hazardous noise.

The Level Dependent microphones provides perfect directional hearing and the EPS (Electronic Protection System) limits all sounds to a safe sound level. Ergonomic design, replaceable headband and ear cushions encourage regular replacement for a long lasting and high performing product. For optimal safety communication radios can be connected via the external sound input as well as MP3 players and other common devices.

LEVEL DEPENDENT MICROPHONES

Flush mounted microphones in each earcup ensure excellent directional hearing and spatial awareness

ERGONOMICALLY PLACED RUBBER COATED KNOBS

Easy to reach and offers good grip even when wearing gloves

UNIQUE SPEAKER DESIGN

Advanced speaker holder with bass chamber for a great listening experience

ELECTRONIC PROTECTION SYSTEM

Any sound reproduced through the speakers are limited to a safe level

SLIM PROFILE DESIGN

Increased stability and reduces risk of snagging in confined areas



APPLICATIONS

Active can be used for a variety of applications. The main purpose of the Level Dependent functions is to protect against impulsive or intermittent hazardous noise whilst allowing situational awareness.

TECHNICAL DATA

Batteries	2 x 1,5 V AA (minimum 800 hours of use)
Weight	Headband 372g, Cap mounted 402g
Sound reproduction	Stereo
Max level on electrical audio input	263 mV
Sound level limit (EPS)	max. 82dB
Amplification	max. 8 dB (primarily in freq. range 500-3k Hz - human speech area)

MATERIAL DATA

Headband & Helmet arm	POM
Spring housing	POM 10% gf & steel spring
Slot adaptor	PA 66 10% gf
Earcups	ABS
Ear cushion	Polyether & PVC-foil
Headband cushion	Polyether & lycra
Foam liner (sound absorber)	Polyether
Knobs	ABS & TPE
Grummets	TPE

ATTENUATION DATA

47002-001 ACTIVE Headband, EN 352-1:2002, Weight 372g, PZT GmbH Notified Body: 1974												
Frequency Hz	63	125	250	500	1000	2000	4000	8000	H	M	L	SNR
Mean Attenuation	21,0	18,4	21,1	27,7	36,9	36,1	42,1	38,8				
Std. dev	6,3	4,5	4,2	3,5	4,0	3,6	3,5	5,4	34	27	20	30
APV	14,7	13,9	16,9	24,2	32,9	32,5	38,6	33,4				

47102-001 ACTIVE Cap mounted, EN 352-3:2002, Weight 402g, PZT GmbH Notified Body: 1974												
Frequency Hz	63	125	250	500	1000	2000	4000	8000	H	M	L	SNR
Mean Attenuation	17,8	16,3	19,5	26,9	34,3	33,8	41,8	37,4				
Std. dev	4,2	4,0	3,2	3,1	4,0	2,9	3,3	3,8	33	26	19	29
APV	13,6	12,3	16,3	23,8	30,3	30,9	38,5	33,6				

47002-001 ACTIVE Headband, ANSI S3.19-1974, Weight 13.12 oz, CSAA										
Frequency Hz	125	250	500	1000	2000	3150	4000	6300	8000	NRR
Mean Attenuation	19.9	21.8	27.7	35.4	36.9	39.3	43.1	43.2	42.1	24
Std. dev	4.1	2.5	2.8	4.1	3.9	4.6	4.6	3.1	3.1	

47102-001 ACTIVE Cap mounted, ANSI S3.19-1974, Weight 14.18 oz										
Frequency Hz	125	250	500	1000	2000	3150	4000	6300	8000	NRR
Mean Attenuation	17.4	19.5	27.3	32.6	34.0	36.6	39.3	42.5	40.1	23
Std. dev	3.5	2.4	3.1	3.5	2.7	3.5	3.4	4.1	4.7	



Hellberg
Since 1962



RELAX



HEARING PROTECTION WITH AM/FM RADIO

Relax protects your hearing while you enjoy listening to your favourite radio station or connect to a communication radio, mobile phones etc. Easy to reach controls let you manually tune the AM/FM radio accurately. Combined with the automatic frequency control you will lock on to your favourite station for the best reception available even in low signal areas.

Any sound reproduced through the speakers are limited to a safe level by the EPS (Electronic Protection System). Ergonomic design, replaceable headband and ear cushions encourage regular replacement for a long lasting and high performing product.

MANUAL TUNING AND AUTOMATIC FREQUENCY CONTROL

Easy to tune accurately and locks onto the desired radio station

ERGONOMICALLY PLACED RUBBER COATED KNOBS

Easy to reach and offers good grip even when wearing gloves

UNIQUE SPEAKER DESIGN

Advanced speaker holder with bass chamber for a great listening experience

ELECTRONIC PROTECTION SYSTEM

Any sound reproduced through the speakers are limited to a safe level

SLIM PROFILE DESIGN

Increased stability and reduces risk of snagging in confined areas



APPLICATIONS

Relax can be used for a variety of applications. The AM/FM radio is suitable particularly for monotonous and stationary work tasks in noisy areas. The purpose of the radio is to increase motivation and efficiency.

TECHNICAL DATA

Batteries	2 x 1,5 V AA (minimum 130 hours of use)
Weight	Headband 377g, Cap mounted 407g
Sound reproduction	Stereo
Max level on electrical audio input	263 mV
Sound level limit (EPS)	max. 82dB
Radio frequency range	FM: 88-108 MHz, AM: 540-1700 KHz

MATERIAL DATA

Headband & Helmet arm	POM
Spring housing	POM 10% gf & steel spring
Slot adaptor	PA 66 10% gf
Earcups	ABS
Ear cushion	Polyether & PVC-foil
Headband cushion	Polyether & lycra
Foam liner (sound absorber)	Polyether
Knobs	ABS & TPE
Grummets	TPE

ATTENUATION DATA

45002-001 RELAX Headband, EN 352-1:2002, Weight 377g, PZT GmbH Notified Body: 1974												
Frequency Hz	63	125	250	500	1000	2000	4000	8000	H	M	L	SNR
Mean Attenuation	21,0	18,4	21,1	27,7	36,9	36,1	42,1	38,8				
Std. dev	6,3	4,5	4,2	3,5	4,0	3,6	3,5	5,4	34	27	20	30
APV	14,7	13,9	16,9	24,2	32,9	32,5	38,6	33,4				

45102-001 RELAX Cap mounted, EN 352-3:2002, Weight 407 g, PZT GmbH Notified Body: 1974												
Frequency Hz	63	125	250	500	1000	2000	4000	8000	H	M	L	SNR
Mean Attenuation	17,8	16,3	19,5	26,9	34,3	33,8	41,8	37,4				
Std. dev	4,2	4,0	3,2	3,1	4,0	2,9	3,3	3,8	33	26	19	29
APV	13,6	12,3	16,3	23,8	30,3	30,9	38,5	33,6				

45002-001 RELAX Headband, ANSI S3.19-1974, Weight 13.30 oz, CSAA										
Frequency Hz	125	250	500	1000	2000	3150	4000	6300	8000	NRR
Mean Attenuation	19.9	21.8	27.7	35.4	36.9	39.3	43.1	43.2	42.1	24
Std. dev	4.1	2.5	2.8	4.1	3.9	4.6	4.6	3.1	3.1	

45102-001 RELAX Cap mounted, ANSI S3.19-1974, Weight 14.36 oz										
Frequency Hz	125	250	500	1000	2000	3150	4000	6300	8000	NRR
Mean Attenuation	17.4	19.5	27.3	32.6	34.0	36.6	39.3	42.5	40.1	23
Std. dev	3.5	2.4	3.1	3.5	2.7	3.5	3.4	4.1	4.7	



Hellberg
Since 1962





SECURE™

PASSIVE HEARING PROTECTION

The Secure™ passive range provides protection suited for everything from low to extreme noise level environments. Choose from various types of hearing protection in different protection levels clearly indicated with bright safety colors for easy identification and selection. The slim profile design increases stability and reduces the risk of snagging in confined areas.

All products are of course fully compatible with Hellbergs SAFE™ Visor system for a seamless combination of head, face and hearing protection.



SECURE HEADBAND



PASSIVE HEARING PROTECTION - HEADBAND

The Secure headband offers great comfort and quality to all professional users in three different levels of protection clearly indicated with bright safety colors for easy identification and selection. The slim profile design increases stability and reduces the risk of snagging in confined areas.

Light and durable headband construction with soft cushions and easy size adjustment provides perfect fit for all head sizes. The soft ear cushions, easy replaceable with "snap-in" system encourage regular replacement for a long lasting and high performing product. Easily convert the headband to a visor earmuff combination with Hellbergs face protection system SAFE.

PERFORMANCE DIFFERENTIATED BY COLOR

For easy identification and performance selection

EAR AND HEADBAND CUSHIONS WITH "SNAP IN" SYSTEM

The soft and wide cushions increases comfort and wear time.

SLIM PROFILE DESIGN

Increased stability and reduces risk of snagging in confined areas

SMOOTH TELESCOPIC SIZE ADJUSTMENT

Increases comfort, stability and wear time

NON-CONDUCTIVE

Reduces the risk of electrical shock

FULLY COMPATIBLE WITH HELLBERGS SAFE™ VISOR SYSTEM

Easy to upgrade your earmuff to a visor muff combination



APPLICATIONS

Secure 1 is suitable for general industrial work environments. Best choice in low to medium noise levels (dB) and medium to high frequency noise.

Secure 2 is for work environments with a medium to high noise level (dB) Best choice in high frequency noise. Suitable for a wide variety of applications such as; Building and construction, manufacturing, forestry, industrial work, agriculture & farming etc.

Secure 3 is the choice when nothing else will do. Best choice in low frequency noise. For extremely noisy environments such as; airport ground crew, motor racing, drill hammering etc.

MATERIAL DATA

Headband	POM
Earcups	ABS
Ear cushion	Polyether & PVC-foil
Spacer (colour ring)	ABS
Headband cushion	Polyether & lycra
Foam liner (sound absorber)	Polyether
Buckle	POM

ATTENUATION DATA

41003-001 SECURE 3 Headband, EN 352-1:2002, Weight 277g, PZT GmbH Notified Body: 1974												
Frequency Hz	63	125	250	500	1000	2000	4000	8000	H	M	L	SNR
Mean Attenuation	20,5	17,5	24,8	32,7	43,8	36,4	35,9	38,1				
Std. dev	5,4	3,0	2,4	2,6	3,7	3,5	3,1	4,1	34	31	22	33
APV	15,1	14,5	22,4	30,1	40,1	32,9	32,8	34,0				

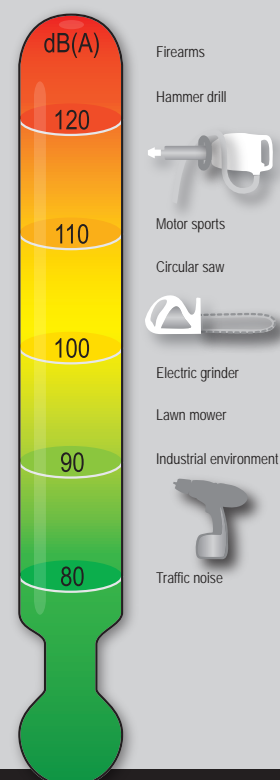
41002-001 SECURE 2 Headband, EN 352-1:2002, Weight 248g, PZT GmbH Notified Body: 1974												
Frequency Hz	63	125	250	500	1000	2000	4000	8000	H	M	L	SNR
Mean Attenuation	18,2	13,6	21,8	30,7	39,4	35,8	37,6	40,0				
Std. dev	5,4	3,4	2,7	3,1	3,0	2,9	2,8	4,8	35	28	18	30
APV	12,8	10,2	19,1	27,6	36,4	32,9	34,8	35,2				

41001-001 SECURE 1 Headband, EN 352-1:2002, Weight 227g, PZT GmbH Notified Body: 1974												
Frequency Hz	63	125	250	500	1000	2000	4000	8000	H	M	L	SNR
Mean Attenuation	13,8	10,9	15,6	25,4	31,1	30,8	33,8	33,5				
Std. dev	4,7	2,3	2,2	3,4	3,0	2,3	3,1	2,6	30	23	15	26
APV	9,1	8,6	13,4	22,0	28,1	28,5	30,7	30,9				

41003-001 SECURE 3 Headband, ANSI S-3.19-1974, Weight 9.7 Ounce, CSA A										
Frequency Hz	125	250	500	1000	2000	3150	4000	6300	8000	NRR
Mean Attenuation	18.1	24.8	33.5	42.8	37.3	36.2	38.0	39.0	38.9	28
Std. dev	2.3	2.3	2.8	2.8	2.8	2.1	3.3	1.8	2.4	

41002-001 SECURE 2 Headband, ANSI S-3.19-1974, Weight 8.7 Ounce, CSA A										
Frequency Hz	125	250	500	1000	2000	3150	4000	6300	8000	NRR
Mean Attenuation	17.0	21.7	31.1	41.9	36.1	37.6	37.0	38.8	38.8	26
Std. dev	2.9	1.7	2.5	2.8	2.6	3.6	4.1	2.5	3.9	

41001-001 SECURE 1 Headband, ANSI S-3.19-1974, Weight 8.0 Ounce, CSA B										
Frequency Hz	125	250	500	1000	2000	3150	4000	6300	8000	NRR
Mean Attenuation	13.8	19.4	28.7	39.0	32.5	34.5	34.6	36.5	35.7	23
Std. dev	2.5	2.4	3.1	3.3	2.6	3.0	2.7	2.4	3.1	



Hellberg Safety Secure Cap mounted
A product in the Secure™ Passive range

SECURE

CAP MOUNT



PASSIVE HEARING PROTECTION - CAP MOUNTED

The Secure cap mounted earmuff is the ideal choice for any work that requires head and hearing protection such as; construction, forestry, heavy industry, mining, oil & gas etc. Its durable construction withstands rough environments and the slim design reduces the risk of snagging in confined areas. Available in three protection levels, clearly indicated with bright safety colors for easy identification and selection.

Fully compatible with Hellbergs face protection system SAFE and most helmets on the market.

UNIVERSAL 30 MM EURO SLOT ADAPTOR

Fits most helmets on the market and is prepared for mounting of visor carrier

PERFORMANCE DIFFERENTIATED BY COLOR

For easy identification and performance selection

NON-CONDUCTIVE

Reduces the risk of electrical shock

SLIM PROFILE DESIGN

Increased stability and reduces risk of snagging in confined areas

SMOOTH TELESCOPIC SIZE ADJUSTMENT

Increases comfort, stability and wear time

FULLY COMPATIBLE WITH HELLBERGS SAFE™ VISOR SYSTEM

Easy to upgrade your earmuff to a visor muff combination



APPLICATIONS

Secure 1 is suitable for general industrial work environments. Best choice in low to medium noise levels (dB) and medium to high frequency noise.

Secure 2 is for work environments with a medium to high noise level (dB) Best choice in high frequency noise. Suitable for a wide variety of applications such as; Building and construction, manufacturing, forestry, industrial work, agriculture & farming etc.

Secure 3 is the choice when nothing else will do. Best choice in low frequency noise. For extremely noisy environments such as; airport ground crew, motor racing, drill hammering etc.

MATERIAL DATA

Earcup & Spacer	ABS
Cushion	Polyether and PVC-foil
Foam liner	Polyether
Buckle & Arm	POM
Spring housing	POM 10% gf
Screw for housing	Stainless steel
Slot adaptor	PA 66 10% gf
Steel spring	Stainless spring steel

ATTENUATION DATA

42003-001 SECURE 3 Cap mounted, EN 352-3:2002, Weight 300g, PZT GmbH Notified Body: 1974												
Frequency Hz	63	125	250	500	1000	2000	4000	8000	H	M	L	SNR
Mean Attenuation	16,4	17,7	23,5	31,8	41,6	36,4	34,2	35,2				
Std. dev	4,3	3,3	4,2	3,5	3,4	3,8	3,9	5,7	32	29	21	31
APV	12,1	14,4	19,3	28,3	38,2	32,6	30,3	29,5				

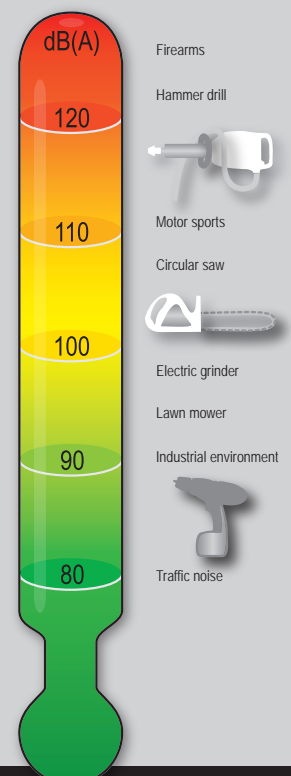
42002-001 SECURE 2 Cap mounted EN 352-3:2002, Weight 271g, PZT GmbH Notified Body: 1974												
Frequency Hz	63	125	250	500	1000	2000	4000	8000	H	M	L	SNR
Mean Attenuation	15,0	15,0	21,0	28,1	35,3	34,0	34,0	37,3				
Std. dev	4,1	2,6	3,1	3,5	4,0	3,8	4,5	4,4	31	27	19	29
APV	10,9	12,4	17,9	24,6	31,3	30,2	29,5	32,9				

42001-001 SECURE 1 Cap mounted EN 352-3:2002, Weight 250g, PZT GmbH Notified Body: 1974												
Frequency Hz	63	125	250	500	1000	2000	4000	8000	H	M	L	SNR
Mean Attenuation	15,0	15,0	14,7	24,7	33,1	26,8	32,2	34,6				
Std. dev	4,2	3,1	2,9	2,9	3,2	2,7	2,8	3,7	27	23	16	25
APV	10,8	11,9	11,8	21,8	29,9	24,1	29,4	30,9				

42003-001 SECURE 3 Cap mounted, ANSI S-3.19-1974, Weight 10.6 Ounce, CSA A										
Frequency Hz	125	250	500	1000	2000	3150	4000	6300	8000	NRR
Mean Attenuation	19.4	23.6	33.5	37.9	36.5	35.0	39.4	39.2	39.6	27
Std. dev	2.9	2.1	1.9	4.3	2.1	3.3	2.8	2.6	2.4	

42002-001 SECURE 2 Cap mounted, ANSI S-3.19-1974, Weight 9.5 Ounce, CSA A										
Frequency Hz	125	250	500	1000	2000	3150	4000	6300	8000	NRR
Mean Attenuation	15.7	20.7	28.8	36.9	35.2	37.0	37.8	39.6	38.6	24
Std. dev	2.8	2.1	3.0	2.9	3.2	3.4	2.2	2.4	2.8	

42001-001 SECURE 1 Cap mounted, ANSI S-3.19-1974, Weight 8.8 Ounce, CSA B										
Frequency Hz	125	250	500	1000	2000	3150	4000	6300	8000	NRR
Mean Attenuation	14.0	17.6	25.9	36.1	32.8	34.6	34.6	35.3	36.8	22
Std. dev	2.5	2.0	2.7	3.5	2.7	3.3	2.5	4.0	4.3	



Hellberg Safety Secure Neckband
A product in the Secure™ Passive range

SECURE NECKBAND



PASSIVE HEARING PROTECTION - NECKBAND

The Secure neckband style earmuff offers great versatility to the user. A perfect solution when you need hearing protection in conjunction with bump caps, helmets without attachment slots or head mounted face protection.

The strong and easy adjustable head support strap ensures that the earmuff stay in position at all times. Available in three protection levels, clearly indicated with bright safety colors for easy identification and selection.

VELCRO HEAD SUPPORT STRAP

Easily adjustable to any headsize and ensures that the headband stay in position

PERFORMANCE DIFFERENTIATED BY COLOR

For easy identification and performance selection

EAR CUSHIONS WITH "SNAP IN" SYSTEM

The soft and wide cushions increases comfort and wear time.

SLIM PROFILE DESIGN

Increased stability and reduces risk of snagging in confined areas

SMOOTH SIZE ADJUSTMENT

Increases comfort, stability and wear time

NON-CONDUCTIVE

Reduces the risk of electrical shock



APPLICATIONS

Secure 1 is suitable for general industrial work environments. Best choice in low to medium noise levels (dB) and medium to high frequency noise.

Secure 2 is for work environments with a medium to high noise level (dB) Best choice in high frequency noise. Suitable for a wide variety of applications such as; food processing industry, manufacturing, industrial work, auto mobile

Secure 3 is the choice when nothing else will do. Best choice in low frequency noise. For extremely noisy environments such as; airport ground crew, motor racing, drill hammering etc.

MATERIAL DATA

Earcup	ABS
Spacer	ABS
Cushion	Polyether and PVC-foil
Foam liner	Polyether
Textile headband	Nylon with velcro
Neckband attachment	POM
Neckband	Electric insulated stainless steel

ATTENUATION DATA

43003-001 SECURE 3 Neckband, EN 352-1:2002, Weight 240g, PZT GmbH Notified Body: 1974												
Frequency Hz	63	125	250	500	1000	2000	4000	8000	H	M	L	SNR
Mean Attenuation	18,1	18,7	25,2	32,2	42,6	36,1	38,9	38,0				
Std. dev	5,8	4,3	2,7	3,1	4,1	2,7	3,4	4,5	35	31	22	33
APV	12,3	14,4	22,5	29,1	38,5	33,4	35,5	33,5				

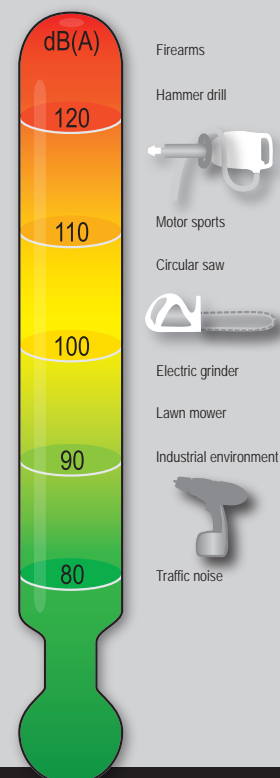
43002-001 SECURE 2 Neckband, EN 352-1:2002, Weight 215g, PZT GmbH Notified Body: 1974												
Frequency Hz	63	125	250	500	1000	2000	4000	8000	H	M	L	SNR
Mean Attenuation	17,9	16,4	21,9	29,0	40,2	35,9	36,2	39,0				
Std. dev	5,4	4,1	3,8	4,0	4,9	3,3	5,8	6,1	33	27	19	30
APV	12,5	12,3	18,1	25,0	35,3	32,6	30,4	32,9				

43001-001 SECURE 1 Neckband, EN 352-1:2002, Weight 192g, PZT GmbH Notified Body: 1974												
Frequency Hz	63	125	250	500	1000	2000	4000	8000	H	M	L	SNR
Mean Attenuation	12,6	11,7	15,9	22,5	30,5	31,2	34,5	33,8				
Std. dev	4,1	2,7	1,9	2,7	2,8	3,5	3,2	4,7	29	23	16	26
APV	8,5	9,0	14,0	19,8	27,7	27,7	31,3	29,1				

43003-001 SECURE 3 Neckband ANSI S-3.19-1974, Weight 8.5 Ounce, CSA A										
Frequency Hz	125	250	500	1000	2000	3150	4000	6300	8000	NRR
Mean Attenuation	18.9	22.8	32.2	41.8	36.8	35.9	37.6	39.4	38.3	27
Std. dev	2.9	2.2	2.2	2.7	2.7	2.3	2.4	2.8	3.2	

43002-001 SECURE 2 Neckband, ANSI S-3.19-1974, Weight 7.6 Ounce, CSA A										
Frequency Hz	125	250	500	1000	2000	3150	4000	6300	8000	NRR
Mean Attenuation	17.6	20.7	31.0	40.4	35.2	38.2	35.5	39.2	38.7	25
Std. dev	3.2	2.3	2.4	3.2	3.0	3.4	2.3	2.8	2.7	

43001-001 SECURE 1 Neckband ANSI S-3.19-1974, Weight 6.7 Ounce, CSA B										
Frequency Hz	125	250	500	1000	2000	3150	4000	6300	8000	NRR
Mean Attenuation	16.7	18.1	27.8	39.5	32.0	34.1	35.8	37.8	36.3	23
Std. dev	3.3	2.1	2.5	3.7	2.7	2.8	2.5	3.9	3.4	





SAFE™

FACE PROTECTION

Hellberg offers customized visors solutions for a variety of applications such as forestry, gardening, agricultural, construction, joinery, industry, foundry, chemical handling, and electrical work. Thanks to the uniform design the visor and carriers can be combined with earmuffs and safety helmets or be used as “stand alone” visor solutions.

Our wide range of high quality visors provide a high degree of protection from impact hazards such as flying fragments, objects and particles. All visors are wellproven in real life and approved to applicable standards.

SAFE 1



VISOR SOLUTION FOR HEADBAND STYLE HEARING PROTECTORS

The SAFE 1 mounts quick and easy to any Hellberg Secure™ headband style hearing protection, and is as easily removed. Perfect when you are switching between different work tasks in noisy environments.

The carrier is developed in conjunction with the hearing protector, fits perfectly and holds the visor firmly in place. The mesh patterned browguard protects against impacts and gives a comfortable air flow. Hellbergs smart uniform design gives you multiple choice of different visors, that all fits perfectly to your carrier.

QUICK HEADBAND ATTACHMENT

Easy to fit to any Secure headband style hearing protectors

SECURE MOVEMENT OF THE VISOR AND A FIRM STAND-BY POSITION

Conveniently flips the visor up or down. Stays out of the way when not in use and is instantly available when needed

MESH PATTERNED BROWGUARD

Well ventilated for a comfortable airflow. Protects from impacts and reduces glare

SLIM PROFILE DESIGN & LIGHTWEIGHT

The visor stays close to your face for superior coverage. Ensures stability and balance



MATERIAL DATA

Carrier	HDPE
Side arms	POM

SAFE 2



VISOR SOLUTION FOR SAFETY HELMETS AND HEARING PROTECTION

The SAFE 2 visor carriers are designed to be combined with safety helmets and all Hellberg SAFE visors. SAFE 2 can be used with or without hearing protection. The straight carrier is for helmets without "cut-outs" for earmuffs or when the slot is placed aligned with the helmet brim. The low peak carrier is for helmets with "cut-outs" or when the slot is placed above the helmet brim.

The FLEX carrier is equipped with a rubber seal to prevent rain, sawdust and other particles from falling down between carrier and helmet.

FULLY COMPATIBLE WITH HELLBERGS SAFE™ VISOR SYSTEM

Simply attach a visor to the carrier

SMOOTH MOVEMENT OF THE VISOR AND A FIRM STAND-BY POSITION

Conveniently flips the visor up or down. Stays out of the way when not in use and is instantly available when needed.

THE FLEX CARRIER IS EQUIPPED WITH A RUBBER SEAL

Prevents rain, sawdust and other particles from falling down between carrier and helmet.

COMPATIBLE WITH MOST HELMETS ON THE MARKET



MATERIAL DATA

Carrier	ABS
Side arms	PA66 30 % GF
Flexible sealing (FLEX carriers only)	TPE

SAFE 3



“STAND-ALONE” VISOR CARRIER OR USE TOGETHER WITH HEARING PROTECTION

The SAFE 3 browguard can be used as a “stand-alone” visor carrier or together with Hellbergs neckband-style hearing protection. The robust browguard protects from flying particles, is light weight, comfortable and fully adjustable to various head sizes.

The browguard is designed to offer the wearer high protection and comfort and is suitable for applications such as; joineries, grinding etc.

COMFORTABLE, ADJUSTABLE STRAP

Fits most head sizes and holds protection firmly in place

SECURE MOVEMENT OF THE VISOR AND A FIRM STAND-BY POSITION

Conveniently flips the visor up or down. Stays out of the way when not in use and is instantly available when needed

FULLY COMPATIBLE WITH HELLBERGS SAFE™ VISOR SYSTEM

Simply attach a visor to the carrier

SLIM PROFILE DESIGN

The visor stays close to your face for superior coverage. Ensures stability and balance



MATERIAL DATA

Carrier	ABS
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SAFE Visor

The SAFE visor system offers customized visors solutions for applications such as forestry, gardening, agricultural, construction, joinery, industry, foundry, chemical handling, and electrical work.

The uniform design makes it possible to mount any of the visors on any of the Hellberg SAFE visor carriers.

Regardless of work task and type of earmuff you can easily choose the right visor for your needs. All visors are well proven in real life, tested and approved to applicable standards.

20912-001 Steel wire mesh



- Protects the wearer from large dust particles and abrasion
- Offers a comfortable airflow
- Approved to low impact and suitable for applications such as forestry work and grass/bush trimming.

Light transmission: 67-70%
 Length: 185mm
 Weight: 52g
 Approvals: EN 1731/F CE, ANSI Z87,

20915-001 Etched steel mesh



- Protects the wearer from large dust particles and abrasion
- The unique hexagon shaped etching provides a light transmission of up to 25% more than a regular woven mesh visor.
- Approved to low impact and suitable for applications such as forestry work and grass/bush trimming.

Light transmission 82-85,5%
 Length: 185mm
 Weight: 42g
 Approvals: EN 1731/F CE, ANSI Z87

20923-001 Nylon wire mesh



- Protects the wearer from large dust particles and abrasion
- Offers a comfortable airflow
- Approved to low impact and suitable for applications such as forestry work and grass/bush trimming.

Light transmission 58-61%
 Length: 185mm
 Weight: 36g
 Approvals: EN 1731/F CE, ANSI Z87

20930-001 Clear polycarbonate



- Best selection for resistance to impact
- Approved to medium impact and suitable for applications such as grass/bush trimming, grinding, construction, industry and molten metal

Length: 200mm
 Weight: 74g
 Thickness: 1mm
 Approvals: EN 166 1B39 CE, ANSI Z87+ CSA Z94.3-2007

20939-001 Clear polycarbonate, chinguard



- Best selection for resistance to impact
- The chinguard is recommended when dealing with chemicals
- Approved to medium impact and suitable for applications such as grass/bush trimming, grinding, construction, industry and molten metal

Length: 220mm
 Weight: 110g
 Thickness: 1mm
 Approvals: EN 166 1B39 CE

20940-001 Clear polycarbonate, anti-fog



- Best selection for resistance to impact and water-based liquids
- The visor is treated to prevent fogging
- Approved to medium impact and suitable for applications such as grass/bush trimming, grinding, construction, industry and molten metal

Length: 250mm
 Weight: 96g
 Thickness: 1mm
 Approvals: EN 166 1B39N CE, ANSI Z87+ CSA Z94.3-2007

range

20967-001 Clear polycarbonate, electric arc



- Provides protection against electric arc up to 400 volts
- Approved to medium impact and suitable for electrical work

Length: 200mm
 Weight: 116g
 Thickness: 1,5mm
 Approvals: EN 166/1B389 CE

20933-001 Clear acetate, antifog



- Highly resistant to chemicals and treated on both sides of the visor to prevent fogging
- Approved to low impact and suitable for work environments with risks for chemical splashes

Length: 200mm
 Weight: 90g
 Thickness: 1mm
 Approvals: EN 166 1F3N CE, ANSI Z87

20942-001 Tinted PC, goldplated



- Reflects heat and protects against infrared radiation, molten metal and harmful liquid splash
- Approved to medium impact and designed for use in high or very high temperature work environments such as foundries.

Length: 250mm
 Weight: 98g
 Thickness: 1mm
 Approvals: EN 166/4-6 1B CE

20931-001 Tinted PC, shade 2



- Best selection for outdoor work where sun glare is present
- Approved to medium impact protection

Length: 200mm
 Weight: 74g
 Thickness: 1mm
 Approvals: EN 166 3-1,2 1B39 CE

VISOR MARKINGS

3-1,2:	Shade number
4-5	Shade number
1	Optical rating class
B:	Offers protection from medium velocity impacts
F	Offers protection from low velocity impacts
3	Offers protection from liquid splashes
8	Short circuit electric arc
9	Resistance to molten metal droplets
N	Anti-fog





About Noise & Hearing

INTRODUCTION

Our sense of hearing is precious, yet we seldom think about what a fantastic sensory organ our ear actually is. Our ability to communicate with friends, listening to music, or experiencing a child's first laughter is something we take for granted. Unfortunately, for a significant part of the population, this ability is partially or entirely lost, because of exposure to loud noise. Hearing loss cannot be restored but avoiding damage to your hearing is in most cases a matter of choosing the proper protection. Noise is one of the most common yet under rated health risks in the workplace. As much as every fourth work related injury is noise related. Many people exposed to harmful noise levels on a daily basis, never or seldom wear proper protection. The problem is often ignored, since hearing damage rarely cause physical pain. The risk for permanent injury is therefore significant. Typical work environments where noise levels are above safe limit are pulp and paper, construction, mining, forestry and gardening, agricultural, airport crew and most types of industry work. Recent researches have even documented harmful noise levels in preschools.

THE EAR

The human ear is a fascinating and very sensitive organ. It consists of several small parts that together bring us our wonderful sense of hearing. When a sound wave enters our outer ear, it is lead into the ear canal, hitting the micro thin eardrum which starts to vibrate in sync with the sound waves. These vibrations then create a mechanical reaction involving three small bone parts, – the Hammer, the Anvil and the Stirrup. The Stirrup is attached to the Stapedius-muscle, which in turn react to the signals by pumping fluids inside the inner ear. The inner

ear has a multitude of fine hair cells, which react to the flowing and starts a chemical reaction. In this process, small electrical impulses are transmitted to the brain, which we interpret as sound.

From our industrialized society, we are exposed to a lot of noises, many of them greatly mismatched to our fine hearing. By exposing the ear to high levels of noise, the small hair cells of our inner ear get damaged. They become puffy and lose their elasticity. Over time, hair cells will die and hearing loss occur.

DEFINITION OF SOUND

Sound is caused by vibrations from a sound source such as a machine, loudspeaker, or the human voice box. Sound is measured in Frequency (Hertz, Hz) and Sound pressure level (Decibel, dB).

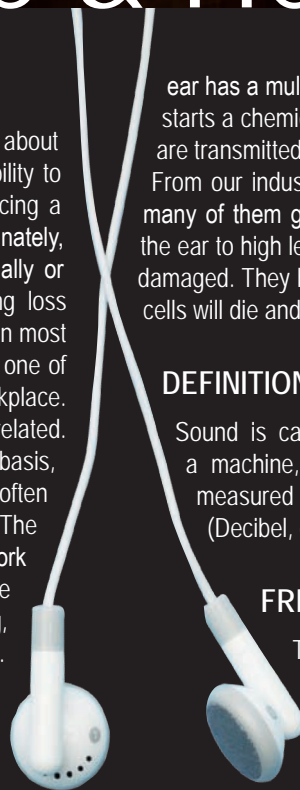
FREQUENCY

The most common sounds, like that of human speech (500-3000Hz), are found in the High and Middle frequency range. Low frequency sounds (below 500Hz) are usually generated by large engines, ventilation systems, etc.

The human ear can hear sounds in a range between 20 and 20 000 Hz. As we grow older, the ageing process itself, or exposure to high noise levels, causes a decline in our hearing, making it harder to identify high frequency sounds.

SOUND PRESSURE

The lowest sound pressure level distinguishable by the human ear is 0 dB, and anything above 130 dB is likely to cause pain.



NOISE

What we call "noise", is usually described as sounds we experience as unpleasant or disturbing. High level of noise is hazardous to your hearing. Noise can also lead to stress symptoms, discomfort, pain, and increased risk for heart disease.

Harmful noise is everywhere. Loud music, a rock concert, motorsports, target practice or hunting, even mowing the lawn – it could all damage your hearing. These noises are often considered harmless, but they represent significant risk, and call for protection. All noises add to your daily quota of exposure, therefore it is important to wear proper hearing protection at all times.

NOISE & RISK

Over 30% of all workers are exposed to hazardous noise levels and noise induced hearing loss is the most common reported occupational disease. About 800 million people around the world are affected by hearing loss. It is estimated, that this number will rise to 1.1 billion by 2015 – about 16% of the world's population.

When estimating the risk of hearing damage there are three important factors to consider; exposure time, frequency (Hz) and sound pressure level (dB).

Middle to High frequency noise is the most damaging to your hearing, and should therefore be your primary concern.

Low frequency noise is usually less damaging, but can be dangerous because it masks human speech, alarm signals and it can cause symptoms like dizziness and nausea. Some low frequencies are difficult to block out even with proper hearing protection, because it can transmit directly into the inner ear through your skull

In addition to harmful noise of the steady and longer term kind, peak noises can be equally dangerous. Peak noises are typically those from firearms, hammers, nails guns and other air tools. The brain needs at least 0,3 sec to identify a sound at the right level. Shorter duration is perceived lower than the actual level to our brain. The hearing organ reacts a lot faster.

We do not realize that these noises are harmful to our hearing and we often disregard the need for protection.

SELECTION

When selecting a hearing protector, consideration should be given to the following factors:

Sound attenuation - Hearing protectors should be chosen according to the sound attenuation they will provide. National regulations or other guidelines may stipulate selection criteria for personal hearing protection and place limits on sound exposure. Such relevant criteria and limits should be taken in to account in deciding what level of sound attenuation is required.

Comfort and ergonomic requirements - The wearer's comfort when selecting an earmuff is of importance to enhance 100 % wear time.

Compatibility with other PPE - When combining hearing protection with other protective equipment it is important that the hearing protection attenuation is not impaired due to the combination. For example the side arms of spectacles should be of a low profile type to not disturb the seal of the earmuff.

REMEMBER

- Hellberg recommend that the level under the hearing protector (at the ear) should be between 70-80 dB(A). A hearing protector should not afford unnecessarily high attenuation because it may cause difficulties with communication and the hearing of warning signals.
- Hearing protectors must be worn all the time in noisy environments. If only worn for 4 h out of an 8 hour working day, the effective protection provided by any hearing protection is not more than 3dB.
- Attenuation performance can be affected negatively by factors such as long hair, incorrect fitting or combination of other PPE equipment. If you are uncertain if your other equipment will affect the attenuation it may be wise to choose a hearing protection with a higher protection level.
- It is just as important to protect yourself from noise during your spare time as it is during your working day.





About Face Protection

INTRODUCTION

Sight is one of your most important senses, being a link to your environment and is vital for how you perceive the world and interact with other people.

Your eyes are very complex and vulnerable organs. There are numerous elements that are involved in the process of seeing and our eyes are composed of more than 2 million parts.

Each year thousands of people are blinded from work-related eye injuries that could have been prevented with the proper selection and use of eye and face protection.

IMPACT

The majority of injuries result from impacts of flying objects and particles, or sparks striking the face and eye. Many of these objects are smaller than a pin head and can cause serious injury.

ULTRA VIOLET RADIATION (UV)

Most people are aware that UV radiation can be harmful to your skin, but few of us realize that solar exposure and UV radiation can harm your eyes. UV radiation is invisible rays from the sun. There are three different types; UVA, UVB and UVC. UVC is the strongest and most dangerous but pose little or no threat as it is absorbed in the ozone layer.

Exposure to UVA and UVB can be very harmful to your eyes. The longer the eyes are exposed, the greater the risk of injuries or risk of developing conditions such as cataracts or other eye diseases later in life.

It is important to note that UV radiation can be emitted by artificial sources like industrial processes and lasers. Workers must use face-, eye- and skin protection while working with UV radiation sources. What type of protection needed depends on the type and intensity of the UV source.

INFRARED RADIATION (IR)

IR radiation is a form of electromagnetic radiation and is perceptible as heat. Heat injuries may occur to the eye and face when workers are exposed to high temperatures, splashes of molten metal, or hot sparks. Burns to eye and face tissue are the main concern when working with heat hazards but workers exposed to close-up or high levels of IR radiation have been found to have increased incidences of eye cataracts as a result.

A variety of protective equipment can be used to reduce exposure such as visors and goggles with IR reflecting or absorbing lenses. Typical IR exposure operations involve pouring, casting, hot dipping, furnace and foundry operations, and other similar activities.

CHEMICALS

A large percentage of eye injuries are caused by direct contact with chemicals. These injuries often result from an inappropriate choice of PPE that allows a chemical substance to enter from around or under protective eye or face equipment. Serious and irreversible damage can occur when chemical substances comes in contact with the face and eyes in the form of splash, mists, vapors, or fumes.

SELECTION

Face protection visors are intended to protect the face from hazards such as impacts from flying fragments, objects and particles, chemical splashes, heat sources and UV radiation exposure. Use the visor in combination with safety spectacles or goggles for additional protection. When selecting face protection, consideration should be given to factors such as; comfort, functionality, light transmission, work environment and the use of other personal protective equipment. It is of great importance that the protection offers a tight and proper fit so that no objects get around the edges of the visor. If the visor does not fit properly, workers may be less willing to wear it. The visor should cover your face from at least the forehead to the base of your chin.

VISOR TYPES AND MATERIALS

Selecting a visor appropriate for the tasks and hazards is very important. Visors are available in different materials, levels of thickness and size. These levels should correspond with specific tasks. Visor carriers are available in various types to enable the worker to select the appropriate equipment.

Polycarbonate is a versatile, tough plastic and is often used in visors because of its excellent transparency and durability combined with its light weight. Polycarbonate provides excellent impact and heat resistance. It is also used for arc flash protection and high heat and radiation protection. Polycarbonate also provides chemical splash protection and holds up well in extremely cold temperatures.

Acetate provides excellent resistance to chemical splash.

Mesh visors provide good airflow and are generally used to protect the face from flying debris and large dust particles, typically in landscaping and forestry industry.

Steel, nylon and etched mesh are the most common types, where the etched mesh provides greater light transmittance than other mesh visors.

There are visors that provides protection against radiation (IR and UV) by filtering out intensive radiation. These visors are made from special tinted and/or coated polycarbonate. Some visors are treated with an anti-fog coating to prevent fogging.

The following chart provides general guidance for selection of visors.

Hazard type	Examples of hazard	Common related tasks
IMPACT	Flying objects such as large chips, fragments, particles, sand and dirt	Chipping, grinding, machining, wood working, sawing, drilling etc.
HEAT	Anything emitting extreme heat.	Furnace operations, pouring, casting, hot dipping, and welding.
CHEMICALS	Splash, fumes, vapors, and irritating mists.	Acid and chemical handling, degreasing, plating, and working with blood.
DUST	Harmful Dust.	Woodworking, buffing, and general dusty conditions.
OPTICAL RADIATION (UV)	Radiant energy, glare, and intense light	Welding, torch-cutting, brazing, soldering and laser work.





Since 1962

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