

# PROTECT YOUR SENSES

#### TEN OUT OF TEN WOULD STILL LIKE TO HEAR WELL AT

**THE AGE OF 70.** A claim we can make without the support of a scientific study. In addition, we dare to say that most people would like to have both functioning eyes and good health irrespective of whether they are 20 or 70 years old. Some would also like to feel attractive and comfortable - even at work.

Zekler does not guarantee perfect hearing, your health or a life free of accidents. Nor the looks of a model. However, we want to make it easier for you to be suitably protected at your workplace. You are properly protected if you use the products throughout the working day and of course, above all, you must have comfortable protection that fits well. To further motivate you to use protection products, we aim to develop stylish and designed products that you are satisfied with. Obviously you should choose the protection that best suits the working environment or work situation you are in. Consequently, we work to make your choice as easy as possible.

Zekler designs and develops personal protection to protect you while you are at work. **PROTECT YOUR SENSES.** 









18-20



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## **HEARING PROTECTION**

Hearing is one of your most important senses and we would like to show you the best way to protect your hearing when you are at work. First and foremost 100% usage applies and to wear hearing protectors an entire day means they must fit perfectly and make you feel content and at ease.



In order to achieve the best hearing protection, it is important to know what levels of noise are in the sur-

rounding environment as well as in what frequencies the sound occurs. This means the noise environment where you work needs to be measured. The results of the measured noise environment are used when choosing your hearing protectors. The recorded attenuation capability of hearing protectors together with the results of the measured noise environment provide a picture of the expected protection given by a pair of hearing protectors.

### **MEASUREMENT METHODS**

The attenuation capability of the hearing protection is described in the methods set out below. The various attenuation values are stated for each hearing protector in the product section or in the User guide supplied with the hearing protectors.

#### **OCTAVE BAND METHOD**

used to determine the attenuation of the hearing protection in terms of average value and standard deviation in the eight octave bands required by the standard.

#### H-M-L

are used to measure hearing protector attenuation in high (H), medium (M) and low frequency dominated (L) noise.

#### SNR

#### (SINGLE NUMBER RATING)

is a simplified description of hearing protector attenuation. A value is calculated based on the hearing protector's octave band values.

### ATTENUATION LEVELS

To simplify the choice we have divided the protectors into three levels.



Level 1. Good attenuation that suits a low noise level in industrial environments. Especially good attenuation at medium and high frequencies.



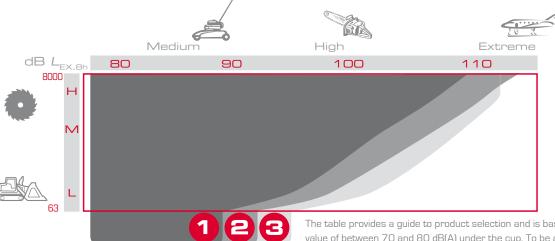
Level 3. Extra high attenuation particularly medium and low frequencies.



Level 2. Higher attenuation in both low and high frequencies, for a more demanding noise environment.

It is important to choose protection that does not "over attenuate". We can only tolerate a certain amount of noise per day before we risk permanent hearing damage. Factors that have an effect are the noise intensity and the time we spend in the noisy environment. For example, we are affected as much by 15 minutes at 100 dB(A) as 8 hours at 85 dB(A). Remember that it is not just in the workplace that your hearing may be affected by noise.

Well-designed protection has a noise level of between 70 and 80 dB (A) under the cups. This is to prevent being isolated and it should be possible to hear sounds in the surrounding environment. If the right protection is chosen there is a far greater chance that it will be used throughout the shift, which is a prerequisite to obtain the desired protective effect. Even a short period of "carelessness" can seriously reduce the effect of the hearing protection.



The table provides a guide to product selection and is based on the expected value of between 70 and 80 dB(A) under the cup. To be absolutely sure you are making the right choice, the noise environment you work in must be measured and calculated together with the hearing protector attenuation values.



### TYPE OF PROTECTION









#### VISOR SYSTEM

Zekler Visor System can be combined with a headband and hard hat attachment in the Zekler 400 series and with a separate head frame. There is also a separate attachment for hard hat mounting. This is used when you do not use hearing protection with the hard hat. See visor in the Eye protection chapter on pages 28-29.



An adjustable headband with fork attachment for the cups. The combination together with the cup's wide sealing cushions give a comfortable protector that can be used for long periods. The soft headband cushion pad and sealing cushions are easily replaceable.

#### NECKBAND

Plastic coated stainless steel neckband. Together with the cup's wide sealing cushions it provides a uniform band pressure and comfortable use. For use with other protective equipment, e.g. a visor, welding helmet or hard hat.



#### HARD HAT MOUNTING

For attaching on a hard hat (30 mm slot attachment) The band with fork attachment of the cups together with the wide sealing cushions provide uniform headband pressure and comfortable use. The hard hat adapter is prepared for mounting a Zekler visor system.



#### APPROVED FOR ATTACHMENT ON THESE HARD HATS

IRIS 2	Balance HD
Style 300	Peltor G2000
Style 600	Peltor G3000
Balance AC	



#### ACCESSORIES

Old, rigid and/or worn sealing cushions impair the hearing protector's attenuation capacity and noise "leaks in". Maintain protection performance and comfort by replacing the sealing cushions regularly.

If you work in extremely dirty environments or share the protection with others we recommend that you fit the sealing rings with a hygienic disposable cover.

### **ELECTRONIC FUNCTIONS**



#### FM RADIO

Allows you to listen to the radio instead of noise without disturbing anyone else. Promotes job satisfaction, while increasing the use of the hearing protectors. Level restrictors in the cups make it impossible to deliver dangerously high sound levels in the speakers.



### LEVEL DEPENDENT SYSTEM

The function is exactly that "Level dependent". The microphones pick up the ambient noise so you can hear what's going on around you and facilitate communication with your colleagues. Should the sound reach harmful levels the electronics react immediately and

take down the level to max. 82 dB. Extremely good in environments with impulse noise, or varying levels of noise. The volume control also allows you to increase the ambient noise and still feel safe. The function reduces the risk of over attenuation and gives you the opportunity of using the protection at all times when there is a risk of damaging noise levels.













### **ZEKLER 412RD**

Comfortable hearing protection with built-in stereo FM radio and level-dependent monitoring. The microphones on the cups' front take in the ambient sound so that you can hear what's happening around you and facilitate communication with your workmates. If the noise comes up to dangerous levels the electronics react straight away and reduce the level to max 82 dB(A). A great aid in environments with impulse noise or varying noise levels. You choose the mix of functions you want (radio or level-dependent monitoring) which is most practical at any moment. Fitted with a 3.5 mm aux audio input channel for connecting an MP3 player, for example.

Excellent noise reduction over low, medium and high frequencies. The overhead fitting has a fork-mount and the wide sealing cushions make for an even head pressure and comfort.

- Attenuation level: Level 2.
- Stereo FM Radio 88 108 MHz with sound level limiter (82dB(A)).
- Level-dependent monitoring, Level Dependent System.
- 3.5 mm AUX input.
- Cable with 2x3.5 mm stereo plugs included.
- 2 x 1.5V AA batteries operation time around 120 hours.
- Adjustable head fitting.
- Soft, replaceable headband cushion.
- Wide, comfortable and easy to replace sealing cushions.

Complies with EN 352-1, 352-4, 352-6, 352-8

#### Attenuation values (electronics OFF)

Frequency Hz	63	125	250	500	1000	2000	4000	8000
Median value (dB)	21	18,4	21,1	27,7	36,9	36,1	42,1	38,8
Standard deviation (dB)	6,3	4,5	4,2	3,5	4	3,6	3,5	5,4
Anticipated attenuation (dB)	14,7	13,9	16,9	24,2	32,9	32,5	38,6	33,4

Н	М	L	SNR
34	27	20	30

Code	Description	Туре	Colour
380682005	Hearing protection	412RD	Black
380684027	Hygiene kit	НКЗ	
380684035	Comfort ring	CR1	











### Zekler 412RDH

The same characteristics as 412RD above, but with hard hat attachment.

Complies with EN 352-3, 352-4, 352-6, 352-8

### Attenuation values (electronics OFF)

F	requency Hz	63	125	250	500	1000	2000	4000	8000
Ν	/ledian value (dB)	17,8	16,3	19,5	26,9	34,3	33,8	41,8	37,4
5	Standard deviation (dB)	4,2	4	3,2	3,1	4	2,9	3,3	3,8
4	Anticipated attenuation (dB)	13,6	12,3	16,3	23,8	30,3	30,9	38,5	33,6

Н	М	L	SNR
33	26	19	29

Co	de	Description	Туре	Colour
38	80682013	Hearing protection	412RDH	Black
38	80684027	Hygiene kit	HK3	
38	80684035	Comfort ring	CR1	











### **ZEKLER 412R**

Comfortable hearing protection with built-in stereo FM radio. Enables the user to listen to the radio instead of noise, without disturbing anyone else. Increases comfort and at the same time increases hearing protection use. Fitted with 3.5 mm aux audio input for connecting an MP3 player, for example. Good attentuation at mid, high and low frequencies. Head fitting with fork mount and the wide sealing cushions provide an even head fitting pressure and make for comfotable use.

- Attenuation level: Level 2.
- Stereo FM Radio 88 108 mhz with sound level limiter (82dB(A)).
- 3.5 mm AUX input.
- Cables 2x3.5 mm stereo plugs included.
- 2 x 1.5V AA batteries operational time around 130 hours.
- · Adjustable head fitting.
- Soft replacable headband cushion.
- Wide, comfortable and easy to replace sealing cushions.

Complies with EN 352-1, 352-6, 352-8

### Attenuation values (electronics OFF)

Frequency Hz	63	125	250	500	1000	2000	4000	8000
Median value (dB)	21	18,4	21,1	27,7	36,9	36,1	42,1	38,8
Standard deviation (dB)	6,3	4,5	4,2	3,5	4	3,6	3,5	5,4
Anticipated attenuation (dB)	14,7	13,9	16,9	24,2	32,9	32,5	38,6	33,4

Н	М	L	SNR
34	27	20	30

Code	Description	Туре	Colour
380682021	Hearing protection	412R	Black
380684027	Hygiene kit	НКЗ	
380684035	Comfort ring	CR1	









### **ZEKLER 412RH**

The same characteristics as 412R above, but with hard hat attachment.

Complies with EN 352-3, 352-6, 352-8

### Attenuation values (electronics OFF)

Frekves Hz	63	125	250	500	1000	2000	4000	8000
Median value (dB)	17,8	16,3	19,5	26,9	34,3	33,8	41,8	37,4
Standard deviation (dB)	4,2	4	3,2	3,1	4	2,9	3,3	3,8
Anticipated attenuation (dB)	13,6	12,3	16,3	23,8	30,3	30,9	38,5	33,6

Н	М	L	SNR
33	26	19	29

Code	Description	Туре	Colour
380682039	Hearing protection	412RH	Black
380684027	Hygiene kit	НК3	
380684035	Comfort ring	CR1	









X IN LEVEL

### **ZEKLER 412D**

Comfortable hearing protection with level-dependent monitoring. The microphones on the cups' front take in the ambient sound so that you can hear what's happening around you and facilitate communication with your workmates. If the noise comes up to dangerous levels the electronics react straight away and reduce the level to max 82 dB(A). A great aid in environments with impulse noise or varying noise levels. Fitted with a 3.5 mm aux audio input channel for connecting an MP3 player, for example.

Good noise reduction over low, medium and high frequencies. The overhead fitting has a fork-mount and the wide sealing cushions make for an even head pressure and comfort.

- Attenuation level: Level 2.
- Level-dependent monitoring, Level Dependent System.
- 3.5 mm AUX input.
- Cable with 2x3.5 mm stereo plugs included.
- 2 x 1.5V AA batteries operation time around 120 hours.
- Adjustable head fitting.
- Soft, replaceable headband cushion.
- Wide, comfortable and easy to replace sealing cushions.

Complies with EN 352-1, 352-4, 352-6

### Attenuation values (electronics OFF)

Frequency Hz	63	125	250	500	1000	2000	4000	8000
Median value (dB)	21	18,4	21,1	27,7	36,9	36,1	42,1	38,8
Standard deviation (dB)	6,3	4,5	4,2	3,5	4	3,6	3,5	5,4
Anticipated attenuation (dB)	14,7	13,9	16,9	24,2	32,9	32,5	38,6	33,4

Н	М	L	SNR
34	27	20	30

Code	Description	Туре	Colour
380682047	Hearing protection	412D	Black
380684027	Hygiene kit	НКЗ	
380684035	Comfort ring	CR1	









### **ZEKLER 412DH**

The same characteristics as 412D above, but with hard hat attachment.

Complies with EN 352-3, 352-4, 352-6

### Attenuation values (electronics OFF)

Frequency Hz	63	125	250	500	1000	2000	4000	8000
Median value (dB)	17,8	16,3	19,5	26,9	34,3	33,8	41,8	37,4
Standard deviation (dB)	4,2	4	3,2	3,1	4	2,9	3,3	3,8
Anticipated attenuation (dB)	13,6	12,3	16,3	23,8	30,3	30,9	38,5	33,6

Н	М	L	SNR
33	26	19	29

Code	Description	Туре	Colour
380682054	Hearing protection	412DH	Black
380684027	Hygiene kit	НКЗ	
380684035	Comfort ring	CR1	





Comfortable hearing protection with an overhead fitting. Particularly good attenuation across medium and high frequencies. Overhead fitting with fork-mount and the wide sealing cushions make for comfortable use. Especially suited in lower ambient noise level environments.

- Attenuation level: Level 1
- Adjustable overhead fitting.
- Soft, replacable helmet cushion.
- Wide, cocmfortable and easy to replace sealing cushions.

#### Complies with EN 352-1

#### Attenuation values

Frequency HZ	63	125	250	500	1000	2000	4000	8000
Median value (dB)	13,8	10,9	15,6	25,4	31,1	30,8	33,8	33,5
Standard deviation (dB)	4,7	2,3	2,2	3,4	3,0	2,3	3,1	2,6
Anticipated attenuation (dB)	9,1	8,6	13,4	22,0	28,1	28,5	30,7	30,9

Н	M	L	SNR
30	23	15	26

Code	Description	Туре	Colour
380682062	Hearing protection	401	Black
380684001	Hygiene kit	HK1	
380684035	Comfort ring	CR1	



### **ZEKLER 401H**

The same characteristics as 401 above, but with hard hat attachment.

### Complies with EN 352-3

#### Attenuation values

Frequency Hz	63	125	250	500	1000	2000	4000	8000
Median value (dB)	15,0	15,0	14,7	24,7	33,1	26,8	32,2	34,6
Standard deviation (dB)	4,2	3,1	2,9	2,9	3,2	2,7	2,8	3,7
Anticipated attenuation (dB)	10,8	11,9	11,8	21,8	29,9	24,1	29,4	30,9

Н	М	L	SNR
27	23	16	25

Code	Description	Type	Colour
380682070	Hearing protection	401H	Black
380684001	Hygiene kit	HK1	
380684035	Comfort ring	CR1	



### **ZEKLER 401N**

The same characteristics as 401 above, but with neckband.

### Complies with EN 352-1

### Attenuation values

Frequency Hz	63	125	250	500	1000	2000	4000	8000
Median value (dB)	12,6	11,7	15,9	22,5	30,5	31,2	34,5	33,8
Standard deviation (dB)	4,1	2,7	1,9	2,7	2,8	3,5	3,2	4,7
Anticipated attenuation (dB)	8,5	9,0	14,0	19,8	27,7	27,7	31,3	29,1

Н	М	L	SNR
29	23	16	26

Code	Description	Туре	Colour
380682088	Hearing protection	401N	Black
380684001	Hygiene kit	HK1	
380684035	Comfort ring	CR1	





Comfortable hearing protection with an overhead fitting for more demanding noisy environments. Good attenuation across mid, high and low frequencies. Overhead fitting with fork-mount and the wide sealing cushions provide an even weight distribution over the head make for comfortable use.

- Attenuation level: Level 2
- Adjustable overhead fitting.
- Soft, replacable headband cushion.
- Wide, comfortable and easy to replace sealing cushions

Complies with EN 352-1

#### Attenuation values

Frequency Hz	63	125	250	500	1000	2000	4000	8000
Median value (dB)	18,2	13,6	21,8	30,7	39,4	35,8	37,6	40,0
Standard deviation (dB)	5,4	3,4	2,7	3,1	3,0	2,9	2,8	4,8
Anticipated attenuation (dB)	12,8	10,2	19,1	27,6	36,4	32,9	34,8	35,2

Н	М	L	SNR
35	28	18	30

Code	Description	Туре	Colour
380682096	Hearing protection	402	Black
380684019	Hygiene kit	HK2	
380684035	Comfort ring	CR1	



### ZEKLER 402H

The same characteristics as 402 above, but with hard hat attachment.

Complies with EN 352-3

#### Attenuation values

Frequency Hz	63	125	250	500	1000	2000	4000	8000
Median value (dB)	15,0	15,0	21,0	28,1	35,3	34,0	34,0	37,3
Standard deviation (dB)	4,1	2,6	3,1	3,5	4,0	3,8	4,5	4,4
Anticipated attenuation (dB)	10,9	12,4	17,9	24,6	31,3	30,2	29,5	32,9

Н	М	L	SNR
31	27	19	29

Code	Description	Туре	Colour
380682104	Hearing protection	402H	Black
380684019	Hygiene kit	HK2	
380684035	Comfort ring	CR1	



### **ZEKLER 402N**

The same characteristics as 402 above, but with neckband.

Complies with EN 352-1

### Attenuation values

Frequency Hz	63	125	250	500	1000	2000	4000	8000
Median value (dB)	17,9	16,4	21,9	29,0	40,2	35,9	36,2	39,0
Standard deviation (dB)	5,4	4,1	3,8	4,0	4,9	3,3	5,8	6,1
Anticipated attenuation (dB)	12,5	12,3	18,1	25,0	35,3	32,6	30,4	32,9

Н	M	L	SNR
33	27	19	30

Code	Description	Туре	Colour
380682112	Hearing protection	402N	Black
380684019	Hygiene kit	HK2	
380684035	Comfort ring	CR1	





Comfortable hearing protection with overhead fitting with exceptional attenuation across mid and low frequencies. Overhead fitting with fork-mount, and the wide sealing cushions provide an even load on the fitting and make for comfortable use.

- Attenuation level: Level 3
- · Adjustable overhead fitting.
- Soft, replacable headband cushion.
- Wide, comfortable and easy to replace sealing cushions.

#### Complies with EN 352-1

#### Attenuation values

Frequency Hz	63	125	250	500	1000	2000	4000	8000
Median value (dB)	20,5	17,5	24,8	32,7	43,8	36,4	35,9	38,1
Standard deviation (dB)	5,4	3,0	2,4	2,6	3,7	3,5	3,1	4,1
Anticipated attenuation (dB)	15,1	14,5	22,4	30,1	40,1	32,9	32,8	34,0

Н	М	L	SNR
34	31	22	33

Code	Description	Туре	Colour
380682120	Hearing protection	403	Black
380684019	Hygiene kit	HK2	
380684035	Comfort ring	CR1	



### **ZEKLER 403H**

The same characteristics as 403 above, but with hard hat attachment. Complies with EN 352-3

#### Attenuation values

Frequency Hz	63	125	250	500	1000	2000	4000	8000
Median value (dB)	16,4	17,7	23,5	31,8	41,6	36,4	34,2	35,2
Standard deviation (dB)	4,3	3,3	4,2	3,5	3,4	3,8	3,9	5,7
Anticipated attenuation (dB)	12,1	14,4	19,3	28,3	38,2	32,6	30,3	29,5

Н	М	L	SNR
32	29	21	31

Code	Description	Туре	Colour
380682138	Hearing protection	403H	Black
380684019	Hygiene kit	HK2	
380684035	Comfort ring	CR1	



Accessories for Hearing protection

### **ZEKLER HK1**



#### Zekler HK1 contains:

2 x sealing cushions, 2 x earcup foams and 1 headband cushion.

Fits Zekler hearing protection 401.

Code Description	
380684001	Hygiene kit

### **ZEKLER HK2**



#### Zekler HK2 contains:

2 x sealing cushions, 2 x earcup foams and 1 headband cushion.

Fits Zekler hearing protection 402 and 403.

Code	Description
380684019	Hygiene kit

### **ZEKLER HK3**



#### Zekler HK3 contains:

2 x sealing cushions, 2 x earcup foams and 1 headband cushion.

Fits Zekler hearing protection 412.

Code	Description
380684027	Hygiene kit

### **ZEKLER CR1**



**Zekler CR1 contains:** 20 x sweat absorbers per bag

Fits Zekler hearing protection 401, 402, 403 and 412.

cription	Code	Description
iene kit	380684035	Comfort ring







## **EYE PROTECTION**

The only way to be absolutely safe from eye injuries at the workplace is to wear the right eye protection, 100% of your working time. To do so requires that you are happy with your eye protection. They should have the right fit, the right protection for the task, and not least - the right style!

One gives the other.

If you're satisfied with your eye protection you're safe at work!



Eye protection is worn in order to prowards the eyes and face. These risks can

be partly mechanical, e.g. flying particles and partly chemical, e.g. chemical splashes. Even protection against radiation, for example UV radiation or bright lights, can be hazards that you may be subjected to over the course of a working day.

In order to be able to safely choose the right protection, it is important to determine what risks exist in the surrounding environment and that you are careful to ensure that the protection is tailored to the person using it.



### CHOOSING THE BEST FIT







In order for protective eyewear to protect in a safe manner it is important that they are fitted to the person wearing them. If the eyewear does not fit as designed, there is a risk of gaps occurring where dangerous particles or radiation can penetrate and damage the eye. We all have different shaped faces and there is no single eyewear product that fits all.

There are many things that come into play, such as the width of the face and face shape which determine the optimal fit of the eyewear.

We have chosen to divide our eyewear into three categories - Small, Medium and Large to make the choice easier.

THIS CAN GIVE YOU GUIDANCE IN CHOOSING YOUR EYEWEAR, BUT IT IS STILL IMPORTANT TO TRY THE EYEWEAR TO ENSURE THEY SIT PROPERLY ON YOU.

### TYPE OF PROTECTION



#### GLASSES

Must have side protection. Some glasses can be used over prescription glasses. The lenses are made of impact resistant polycarbonate.



### GOGGLES

Suitable where there is a risk of splashing from chemicals or in environments with a lot of particles.



#### VISORS

Protects both the eyes and face. Replaceable visors are available in different materials to suit different. environments.



#### WELDING

Protects eyes and face from radiation when welding. There are also goggles that only protect your eyes, for example when brazing/cutting

#### AUTOMATIC DARKENING WELDING GLASS (AUTO/VARIABLE)

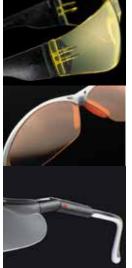
Protects the eyes and face. Darkens when the arc is struck. This allows you to work with both hands during the entire welding process, which increases quality and eliminates the risk of "welder's neck". The welding cassette and shield protect the welder from harmful UV and IR radiation. Recommended use of the different filter shades according to the table on www.zekler.com.

#### WELDING SHIELDS WITH COLOURED LENSES (FIXED)

Protects the eyes and face from radiation when welding. Also goggles that only protect your eyes, for example when brazing/cutting. Recommended use of the different filter shades according to the table on www.zekler.com.



### **FUNCTIONS**



### SCRATCH RESISTANCE

A coating is applied to the lens to provide a strong scratch resistance, which prolongs the life of your eyewear.

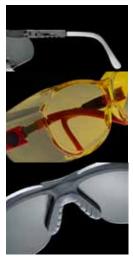
### HC/AF

### SCRATCH/ANTIFOG RESISTANCE

A combined antifog and anti-scratch coating is applied to the lens. Prevents misting of the lens while providing good scratch resistance

### ADJUSTABLE LENS ANGLE

Allows you to adjust the lens angle against the face for an optimum fit.



#### ADJUSTABLE SIDEPIECE LENGTH

Allows you to change the sidearm length for maximum comfort and fit.

#### **OVER GLASSES**

Designed to fit over existing glasses. Protects your eyes and your regular glasses while maintaining visual acuity.

#### SOFT NOSE BRIDGE

Soft nose bridge for optimum user comfort.

### LENS TYPES FOR PROTECTIVE EYEWEAR



#### CLEAR PC

Impact-resistant

For mechanical hazards

Useful in low light conditions

UV protection

Optical class 1

Lens marking 2-1.2 or 2C-1.2 SK 1F

Complies with

EN166 and EN170



#### **BROWN PC**

Impact-resistant

Sunscreen lens

Suitable for outdoor work

UV 400

Optical class 1

Lens marking 5-2.5 SK 1F

Complies with

EN166 and EN172



### WELD FILTER PC

Impact-resistant

Shade 3

Shade 5

Suitable for gas welding, brazing

**UV** protection

Optical class 1

Lens marking 3 or 5 SK 1F

Complies with

EN166 and EN169



#### YELLOW PC

Impact-resistant

Contrast enhancement

Suitable for inspection work

UV protection Optical class 1

Lens marking 2-1.2 SK 1F

Complies with

EN166 and EN170



### GREY PC



### SILVER MIRROR PC



### **BLUE MIRROR PC**

Impact-resistant

Sunscreen lens

Suitable for outdoor work

UV 400

Optical class 1

Lens marking 5-2.5 or 5-3.1 SK 1F

Complies with

EN166 and EN172



### ORANGE PC

Impact-resistant

Contrast enhancement

Experienced as restful to the eye

UV protection

Suitable for inspection work

Optical class 1

Lens marking 2-1.7 SK 1F

Complies with

EN166 and EN170



### O I/O PC

Impact-resistant

Sunscreen lens (light gold mirror)

Suitable for varied work, indoors/outdoors

UV 400

Optical class 1

Lens marking 5-1.7 SK 1F

Complies with

EN166 and EN172



### BE BIFOCAL (READING GLASSES) PC

Impact-resistant

Protective eyewear/Reading glasses

Positive bifocal lens in strengths

+1.0/+1.5/+2.0/+2.5

Suitable for inspection of precision work, drawings, machining, instructions, etc. With Zekler's ground protective eyewear you will not have problems with double glasses while working.

**UV PROTECTION** 

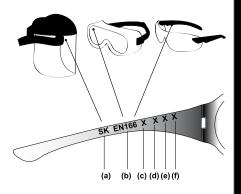
>99.9% UV radiation up to min. 385 nm

UV 400

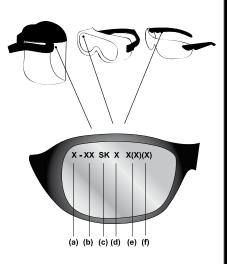
100% UV radiation up to min. 400 nm

## MARKING

MAF	KING OF FRAMES
(a)	Manufacturer
(b)	EN standard number
(c)	Suitable areas of application
	No marking = basic use (glasses)
	3 = Liquids (goggles, visor)
	4 = Dust particles > 5 µm (goggles)
	5 = Gas and small dust particles < 5 μm (goggles)
	8 = Short circuit electric arcs (visor)
	9 = Molten metal and hot material (goggles, visor)
(d)	Mechanical resistance
	S = Enhanced strength
	F = High speed, low-energy impact (6 mm steel ball at 45 m/s)
	B = High speed, medium-energy impact (6 mm steel ball at $120 \text{ m/s}$ )
	A = High speed, high-energy impact (6 mm steel ball at 190 m/s)
	Marking "T" after the symbol for mechanical resistance indicates protection at extreme
	temperatures (FT, BT, AT)
(e)	H = suitable for small head shape
(f)	Highest shade number compatibility with the frame



MARKING OF LENSES		
(a)	Filter Type	
	2 or 2C = UV	
	4 = IR	
	5 or 6 = Sun filter	
(b)	Shade number (Without filter type number = weld filter)	
(c)	Manufacturer	
(d)	Optical class	
	1 = Permanent use	
	2 = Temporary use	
	3 = Used in exceptional cases	
(e)	Mechanical resistance (See marking of frames)	
(f)	Other requirements	
	8 = Short circuit electric arcs (visor)	
	9 = Molten metal and hot materials (goggles and visor)	
	K = Resistance to surface damage by fine particles	
	N = Resistance to misting	
	R = Enhanced reflection factor	







Protective glasses with a modern, sporty design.

- · Polycarbonate lens
- UV radiation protection
- · Adjustable sidepieces made from a mix of hard and soft plastics
- · Lens angle is adjustable
- The spectacles give a wide field of vision and optimal protection
- Soft nosebridge
- Clear, yellow, grey and I/O [Indoor/Outdoor] lenses, Welding filter 3 or 5
- Positive bifocal grinding in strengths +1,0/+1,5/+2,0/+2,5
- Grey and I/O = UV 400

HC = Scratch resistant lens.

HC/AF = Scratch and anti-fog treated lens.

Complies with EN 166, class 1F.

Clear and yellow lenses also with EN 170. Grey and I/O lenses also with EN 172. Welding 3 and 5 also with EN 169.

Code	Lens
380600551	Clear HC
380600569	Yellow HC
380600577	Grey HC
380605071	Clear HC/AF
380605022	Yellow HC/AF

Code	Lens
380605030	Grey HC/AF
380605063	I/O HC/AF
380605089	Weld 3 HC
380605097	Weld 5 HC



### Protective eyewear and reading glasses **ZEKLER 55 Bifocal**

Protective / reading glasses in 4 different bifocal strengths.

- · Polycarbonate lens.
- UV radiation protection.
- Adjustable sidepieces made from a mix of hard and soft plastics.
- · Adjustable lens angle.
- Soft nose bridge.
- Positive bifocal lens; strengths +1.0/+1.5/+2.0/+2.5

HC = Scratch-resistant lens

Complies with EN 166, class 1F and EN 170

Code	Lens	Lens strength
380605105	Clear HC	+1,0
380605154	Clear HC	+1,5
380605204	Clear HC	+2,0
380605253	Clear HC	+2,5





## **ZEKLER 255**

Specially adapted for narrower head forms.

Modern, sporty design.

- · Polycarbonate lens.
- UV radiation protection.
- Adjustable sidepieces made from a mixture of soft and hard plastics.
- · Adjustable lens angle.
- · Soft nose bridge.
- · Available with clear, yellow or grey lenses.
- Grey = UV 400

HC = Scratch-resistant lens

Complies with EN 166, class 1FH. Clear and yellow lens additionally with EN 170. Grey lens additionally with EN 172.

Code	Lens
380650408	Clear HC
380650416	Yellow HC
380650424	Grey HC



Sporty design.

- · Polycarbonate lens
- UV radiation protection.
- Clear, yellow, orange and grey lenses.
- Adjustable sidepieces made from a mixture of hard and soft plastic.
- · Soft nose bridge.
- Areas of use: Orange and yellow lenses give sharp contours, making them especially suitable for e.g. inspection work.
- Grey = UV400

HC = Scratch-resistant lens

HC/AF = Scratch-resistant and anti-fog treated lens

Complies with EN 166, class 1F. Yellow and orange lenses also EN 170. Grey lens also EN 172.

Code	Lens
380600452	Clear HC
380600460	Yellow HC

Code	Lens
380600478	Grey HC/AF
380600486	Orange HC/AF



### **ZEKLER 75**

Protective glasses with a sporty design.

- · Polycarbonate lens.
- UV radiation protection.
- Clear, yellow or grey lens.
- Grey = UV 400

HC = scratch-resistant lens

Complies with EN 166, class 1F. Yellow and clear lenses also EN 170. Grey lens also EN 172.

Code	Lens
380600705	Clear HC
380600718	Yellow HC

Code	Lens
380600726	Grey HC



### **ZEKLER 80**

- Polycarbonate lens.
- UV radiation protection.
- Delivered with adjustable neckband and detachable side pieces.
- With neckband; suitable in combination with hearing protection.
- Clear or grey lens.
- Grey = UV 400.

HC/AF = Scratch-resistant and anti-fog treated lens.

Complies with EN 166, class 1F. Clear lens also EN 170. Grey lens also EN 172.

Code	Lens
380600833	Clear HC/AF

Code	Lens
380600841	Grey HC/AF





Modern, sporty design

- · Polycarbonate lens
- Metal frame with flexible, formable, rubber-coated sidepieces for best comfort.
- Clear lens absorbs 99.9 % of UV radiation. Grey and blue mirror lenses absorb 100% (UV 400).
- · Clear, grey and blue mirror lenses.

HC/AF = Scratch-resistant and anti-fog treated lens.

Complies with EN 166, class 1F. Clear lens also with EN 170.

Grey and blue mirror lenses also with EN 172.

Code	Lens
380605261	Clear HC/AF
380605279	Grey HC/AF

ns .
e HC/AF



- Polycarbonate lens
- Complete side protection.
- UV radiation protection.
- Clear, yellow or grey lens.
- Grey lens = UV 400

HC = Scratch-resistant lens

HC/AF = Scratch-resistant and anti-fog treated lens

Complies with EN 166, class 1FT. Yellow lens also EN 170. Grey lens also EN 172.

Code	Lens
380600304	Clear HC/AF
380600312	Yellow HC/AF
380600320	Grey HC/AF

Code	Lens
380600502	Clear HC
380600510	Yellow HC







### **ZEKLER 235**

- · Specially adapted to narrower head forms.
- · Polycarbonate lens.
- Complete side protection.
- UV radiation protection.
- Clear lens.

HC/AF = Scratch-resistant and anti-fog treated lens.

Complies with EN 166, class 1FH and EN 170

Code	Lens
380650200	Clear HC/AF

### **ZEKLER 31**

- Polycarbonate lens
- Complete side protection
- UV radiation protection
- · Soft nose bridge
- Soft sidepieces
- Clear, yellow or silver mirrored lens
- Silver mirrored lens = UV 400

HC/AF = Scratch-resistant and anti-fog treated lens.

Complies with EN 166, Class 1F

Clear and Yellow also comply with EN 170. Silver mirrored with EN 172

Code	Lens
380604504	Clear HC/AF
380604512	Yellow HC/AF

Code	Lens
380604520	Silver Mirrored HC/AF



- Polycarbonate lens
- UV radiation protection.
- Frameless model
- Adjustable lens angle
- Clear, yellow or brown lens
- Brown = UV 400

Complies with EN 166, class 1F. Clear and yellow lens with EN 170  $\,$ and brown lens also with EN 172.

Code	Lens
380620005	Clear HC/AF
380620013	Yellow HC/AF

Code	Lens
380620021	Brown HC/AF







### **ZEKLER 33**

Protective glasses made from clear polycarbonate.

- Provides a wide field of vision with fully-integrated side protection and ventilation.
- UV radiation protection.
- Can be worn in combination with prescription glasses

Areas of application: suitable for use by visitors Complies with EN 166, class 1FT, and EN 170.

Code	Lens
380600338	Clear

Code	Lens
380600346	Yellow





### **ZEKLER 25**

- Polycarbonate lens.
- Adjustable sidepieces for best comfort.
- The lens angle is also adjustable.
- One-piece sidearm.
- UV radiation protection.
- Can be worn over prescription glasses.
- Clear, yellow or grey lenses.
- Grey = UV 400

HC = Scratch-resistant lens.

HC/AF = Scratch-resistant and anti-fog treated lens.

Complies with EN 166, class 1F. Clear and Yellow lenses also EN 170. Grey lens also EN 172.

Cod	е	Lens	
380	600213	Clear HC	
380	600221	Yellow HC	

Code	Lens
380600239	Grey HC/AF





### Safety goggles

### **ZEKLER 95**

- Anti-fog treated polycarbonate lens.
- · Ventilated frame.
- Soft, comfortable sealing edge that follows the lines of the face.
- · Adjustable elastic band.
- Additionally tested in respect of: protection against droplets [3] large dust particles [4] and resistance to fogging [N]

Complies with EN166, Class 1BT34 and EN 170

Code	Description	Lens
380600940	Safety goggles	Clear HC/AF



### Safety Goggles

### **ZEKLER 90**

- Exchangeable anti-fog treated and scratch-resistant acetate or polycarbonate lenses
- Rim made of flexible PVC, which fits tightly against the face
- Adjustable ventilation
- Can be used in combination with breathing apparatus
- · Adjustable, elastic headband.

Complies with EN 166, class 1. (PC) BT, (AC) FT

Code	Description	Lens
380600908	Safety goggles	Clear HC/AF PC
380600916	Safety goggles	Clear HC/AF AC
380600924	Extra lens	Clear HC/AF PC
380600932	Extra lens	Clear HC/AF AC



### Safety Goggles

### **ZEKLER 88**

- Anti-fog treated, optically neutral lens of polycarbonate.
- Frame produced of smoke-coloured PVC which follows the contours of the face, sealing well.
- 2 covered ventilators.
- Adjustable elastic headband.
- Can be worn over prescription glasses.
- Additionally tested against liquids (3) and large dust particles (4).

### Complies with EN 166, class 1B.

Code	Description	Lens
380600882	Safety goggles	Clear
380600890	Extra lens	Clear



## Safety Goggles ZEKLER 44

- Antifog-treated, optically neutral lens of polycarbonate.
- Frame produced of smoke-coloured PVC which follows the contours of the face, sealing well.
- 6 covered ventilators.
- Adjustable elastic headband.
- Can be worn over prescription glasses.
- Additionally tested against liquids (3) and large dust particles (4).

#### Complies with EN 166, class 1B.

Code	Description	Lens
380600445	Safety goggles	Clear HC/AF PC



of working outdoors; others have to work inside. How you look at it

is individual, like the choice of eyewear. Protective eyewear with 100% UV protection are glasses you can wear on sunny days - even at work! Remember that most models on the previous pages are also available with a sunscreen lens option.





Modern, sporty designed protective glasses with sun protection lens.

- · Polycarbonate lens.
- Absorbs 100% of UV radiation (UV 400).
- Soft nose bridge for best comfort.
- Soft, rubber-coated side piece ends.
- Grey lens.

HC/AF = Scratch-resistant and anti-fog treated lens.

Complies with EN 166, class 1 FT and EN 172.



Code	Lens	Frames
380670026	Grey HC/AF	Red metal/Black
380670018	Grey HC/AF	Blue zebra/Black



### **ZEKLER 201**

Specially adapted for narrower head forms.

- Sporty, modern-looking protective glasses with sun protection lens
- Polycarbonate lens
- Absorbs 100% of UV radiation (UV 400)
- Soft nose-bridge for optimal comfort
- Soft, rubber-covered side pieces for extra comfort

HC/AF = Scratch-resistant and anti-fog treated lens.

Complies with EN 166, class 1FH and EN 172



Code	Lens	Frames
380650002	Grey HC/AF	Black



### **ZEKLER Z104**

Sporty protective glasses in a modern design.

- · Polycarbonate lens.
- Absorbs 100% of UV radiation (UV 400).
- Soft, adjustable nose bridge for optimal comfort.
- · Side pieces in a mix of hard and soft plastics.
- Grey lens.

HC/AF = Scratch-resistant and anti-fog treated lens.

Complies with EN 166, class 1F, and EN 172

Code	Lens	Frames
380670091	Grey HC/AF	Black/Orange





### **ZEKLER Z104**

### with Polarising lenses

Protective glasses in a modern, sporty design with polarising lens.

- · Polycarbonate lens.
- Absorbs 100% of UV radiation (UV 400).
- Soft, adjustable nose bridge for highest comfort.
- Side pieces in mix of hard and soft plastics.
- Grey lens, polarising.

HC/AF = Scratch-resistant and anti-fog treated lens.

Complies with EN 166, class 1F, and EN 172

Code	Lens	Frames
380670117	Polarising HC/AF	Black



### **ZEKLER 106**

Protective glasses in a modern design with grey lens.

- Polycarbonate lens.
- Absorbs 100% of UV radiation (UV 400).
- · Grey lens.

HC/AF = Scratch-resistant and anti-fog treated lens.

Complies with EN 166, class 1F and EN 172.

Code	Lens	Frames
380670141	Grey HC/AF	Black

### EYE PROTECTION - ACCESSORIES

### Hard glasses case ZEKLER



380600767

### Soft glasses case **ZEKLER**



Code 380600775

### Hard glasses case ZEKLER with felt lined interior



Code	Application
380600783	Hard case with felt lining

### Hard glasses case **ZEKLER** for goggles



Code 380600817

### Glasses cord ZEKLER



Code	Description
380600791	Universal and adjustable retainer cord
380600809	Adjustable retainer cord with loop



It should be easy, we cannot say that often enough! When

your work requires



## THIS IS HOW YOU CHOOSE

Work that requires

FACE, HEAD AND HEARING PROTECTION



**Product options** 67PC200 + 61F

67PC250 + 61F 67PC200C + 61F 67AC200 + 61F 67ME185 + 61F 67MS185 + 61F

Work that requires

**FACE AND HEARING PROTECTION** 



**Product options** 

67PC200 + 61A or 61B 67PC250 + 61A or 61B 67PC200C + 61B 67AC200 + 61B 67ME185 + 61A or 61B 67MS185 + 61A or 61B

Work that requires

**FACE AND HEAD PROTECTION** 



**Product options** 

67PC200 + 61E+61F 67PC250+ 61E+61F 67PC200C+ 61E+61F 67AC200+ 61E+61F 67ME185+ 61E+61F 67MS185+61E+61F

Work that requires **FACE PROTECTION** 



## **Product options**

67PC200 + 61B 67PC250 + 61B 67PC200C + 61B 67AC200 + 61B 67ME185 + 61B 67MS185 + 61B Zekler 10



#### Visor PC ZEKLER 67PC200



- Clear visor in polycarbonate.
- · Highest optical class, very good impact resistance.
- Width 200 mm, thickness 1 mm, height 200 mm.
- Fits visor carriers Zekler 61A, 61F, 61E and 61B. Complies with EN 166, class 1B9.

Code 380686006

### Visor PC ZEKLER 67PC250



- · Clear visor in polycarbonate.
- Highest optical class, very good impact resistance.
- Anti-fog treated.
- · Width 200 mm, thickness 1 mm, height 250 mm. Fits visor carriers Zekler 61A, 61F and 61B.

Complies with EN 166, class 1B9.

Code

380686022

#### Visor Mesh ZEKLER 67ME185



- · Visor in etched stainless steel mesh.
- Translucency 82-85,5%.
- Width 200 mm, height 185 mm.
- Fits visor carriers Zekler 61A, 61F, 61E and 61B.

Complies with EN 1731, class S.

Code 380686055

#### Visor PC ZEKLER 67PC200C



- · Clear visor in polycarbonate, with chin protector.
- · Highest optical class, very good impact resistance.
- Width 200 mm, thickness 1 mm, height 220 mm.
- Fits visor carriers Zekler 61F, 61E and 61B.

Complies with EN 166, class 1B9.

Code

380686014

#### Visor AC ZEKLER 67AC200



- · Clear visor in cellulose acetate.
- Highest optical class, good impact resistance.
- Anti-fog treated.
- · Width 200 mm, thickness 1 mm, height 200 mm.
- Fits visor carriers Zekler 61F, 61E and 61B.

Complies with EN 166, class 1FN

Code 380686030

#### Visor Mesh ZEKLER 67MS185



- · Visor in stainless steel mesh.
- Translucency 67-70%.
- Width 200 mm, height 185 mm.
- Fits visor carriers Zekler 61A, 61F, 61E and 61B.

Complies with EN 1731, class S.

380686063

### EYE PROTECTION - ACCESSORIES FOR VISORS

#### Visor carrier Zekler 61A for Zekler headband fitting Clips 61E for Zekler visor carrier 61F



Code

Code

380686535

380686519

- · Simple, easy fastening for mounting of the visor onto hearing protection
- Fits all Zekler hearing protection in the 400-series with headband.
- Fits Zekler visors 67PC200, 67PC250, 67ME185 and 67MS185

The combination of visor/visior carrier complies with EN 166 and EN 1731.



- · Clip fastener for mounting of a visor carrier onto the hard hat, without hearing protection fitted.
- Fits Zekler visor 67PC200, 67PC200C, 67PC250, 67AC200, 67ME185 and 67MS185.

This combinationen of visor/visor carrier complies with EN 166 and EN 1731.



Code

380686543

Code

### Visor carrier Zekler 61F for hard hat mounting



- Visor carrier for stable mounting of the visor on the hard
- Fits all Zekler hearing protection in the 400-series with hard hat attachement.
- Fits Zekler visor 67PC200\_67PC250\_ 67AC200, 67ME185 and 67MS185.

The combination of visor/visor carrier complies with EN 166 and EN 1731

### Head Browguard Zekler 61B



- Steady and comfortable head browquard for the visor when a hard hat is not required.
- · Adjustable overhead band and elastic bands at the neck for comfort and stablity.
- Fits Zekler visors 67PC200\_67PC200C\_67PC250\_ 67AC200, 67ME185 and 67MS185.

This combinationen of visor/visor carrier complies with EN 166 and EN 1731.

### VISOR - FACE SHIELD COMPLETE

#### Face Shield ZEKLER 10



Wide shield of polycarbonate which covers the entire face. Headband and forehead protector made of impact resistant polycarbonate with ratched-knob adjustment of the neckband. The shield, which can be flipped up, is reinforced around the edges with light metal. A sweatband made of velour absorbs sweat and gives maximum comfort. Complies with EN 166, class 1B.

Code	Description
380601005	Face-shield complete
380601013	Visor PC



Zekler 10 is a single product that does not fit with the above systems.



## Welding helmet **ZEKLER** Fusion

Zekler Fusion Auto-Darkening Welding.

### Welding helmet:

- Offers an optimal protection for the entire face, eyes, ears and throat.
- Aerodynamic design to lead the weld smoke away.
- The outside protection plate is convex to reduce the heat and reflex.
- A soft rounded edge around the helmet ensures increased comfort when knocking against the shoulders.
- Comfortable headgear with ratchet-knob adjustment.
- Outside and inside protection plate, a simple replacement without removing the welding cassette.
- Weight, 430 g including welding shield.

#### Complies with EN 379 and EN 175.

Welding shield	Zekler Fusion
Switching time light-dark:	0,15 ms (+23°C)
Adjustable delay levels which make it possible to adjust the delay time for switching from dark to light:	0,2 - 0,8 sec
UV/IR protection, shade level:	UV15 / IR14 permanent
Light shade, shade level:	4
Dark shade, shade level:	Variable shade level 9, 10, 11, 12, 13
Viewing area:	95x46,5 mm
Source of power:	A solar-panel - no battery change
Range of temperature:	-10°C till +60°C
Weight:	95 g
Class (EN 379):	1/1/1

Code	Description	Lens
380610006	Complete with shield	Auto/Variabel 9-13
380611004	Welding shield	Auto/Variabel 9-13
380612002	Protective glass outher	
380612010	Protective glass inner	
380612044	Sweatband	

#### ZEKLER Fusion

- Lightweight (330 g without welding cartridge, 430 g with welding cartridge).
- Soft rounded edge around the complete welding helmet.
- The outer protective glass is convex to reduce heat and glare.
- The protective glass can be easily replaced without removing the welding cassette.
- Comfortable head position using the knob adjustment.
- Optimum protection of the entire face. Aerodynamic design to lead the smoke away.





## Welding glasses **ZEKLER 55**

Welding glasses with shade 3 and 5.

Modern, sporty design.

- Polycarbonate lens.
- Adjustable sidepieces in a mixture of soft and hard plastics.
- Adjustable lens angle.
- The glasses provide a good field of vision and optimal protection.
- Soft nose-bridge.
- Welding filter 3 or 5

HC = Scratch-resistant lens

Complies with EN 166 class 1F and EN 169.

Code	Description	Lens
380605089	Welding Spectacles	Weld 3 Din
380605097	Welding Spectacles	Weld 5 Din





### Welding helmet

### **ZEKLER ADF500**

Zekler ADF Automatically darkening welding helmet.

#### Welding helmet:

- Provides optimal protection for the entire face: eyes, ears and throat.
- Aerodynamic design to lead the weld smoke away.
- A soft, rounded edge around the helmet ensures increased comfort when knocking against the shoulders.
- Comfortable head gear with knob-adjustment.
- Outer and inner protective glass, easy to replace without removing the welding cassette.
- Lightweight. 430 g with the cartridge.

### Complies with EN 379 and EN 175

Welding shield	Zekler ADF 500
Switching time light-dark:	0,25 ms (+23°C)
Adjustable delay levels which make it possible to adjust the delay time for switching from dark to light:	0,1 - 1,0 sec
UV/IR protection, shade level:	Up to Din 16 permanent
Light shade, shade level:	3, 5
Dark shade, shade level:	Variable shade level 9, 10, 11, 12, 13
Viewing area:	97x47,5 mm
Source of power:	A solar-panel - no battery change
Range of temperature:	-5°C - +55°C
Class (EN 379):	1/1/1/2

Code	Description	Lens
380615005	Welding helmet Zekler ADF500	Auto/Variabel 9-13
380612002	Outer protective glass	
380615104	Inner protective glass	
380612044	Sweatband	



### Welding helmet

### **ZEKLER W130**

- Made from fire-proofed plastic, fold-up welding glass.
- Knob-adjustable headband.
- When in the up-position the eyes are protected by clear glass.
- Weight 495 g.
- Supplied with welding glass 110x60 mm shade level 11.

### Complies with EN 166 and EN 175.

Code	Description	Lens
380613000	Welding Helmet Zekler W130	Weld 11 Din
380612010	Inner protective glass	
380612044	Sweatband	







## **RESPIRATORY PROTECTION**

It is about your lungs. It is about your respiratory passages. In order to perform their vital functions both today and in the future, you need to protect them from harmful particles. Some particles are not just unpleasant to breathe, but actually so harmful that they can cause life-long and sometimes fatal illness.

First and foremost 100% usage applies and to use respiratory protection during an entire day means it must fit your face and be comfortable to use.



Filtering half masks are used to prevent harmful particles entering the respiratory tract.

In order to be able to safely choose the right type of filtering half mask, it is important to determine what particles exist in the surrounding environment and in what concentrations they are found. It is also important, to obtain optimum protection from the mask so it can easily and flexibly be adapted to the width and shape of the face, etc. so that inward leakage of particles is prevented.

We have a range of filtering half masks that are perfect when you want to work comfortably in risk environments where this type of protection is demanded.

### **HOW DOES IT WORK?**

When inhaling the air passes through the filter material; when exhaling the air passes through the filter material or through the exhalation valve. The protective function of filtering half masks consists of highperformance filter material, which is combined with traditional mechanical filtration and advanced filtration technology. Particles are captured and effectively retained in the filter material.

The composition of the filter material - type, surface weight and performance - are critical to how effectively particles are filtered, as well as to the level of breathing resistance. If the mask is equipped with an exhalation valve the breathing resistance will be lower. Filtering half masks are only suitable to be worn with normal oxygen content in the air.

#### NO BEARDS!

Your filtering half mask gives good and the right protection when used correctly and sits tight. If you have a beard or heavy stubble it will not sit tight against the face and this will significantly reduce the protection factor and will then not provide adequate protection.

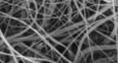
### **FUNCTIONS**



#### **PROTECTION CLASSES** FFP2 and FFP3.

#### FORM

Foldable or cup shaped masks. It is best if you experiment to find the model that suits you best.



### MATERIAL

Effective filter material captures and effectively retains particles at the same time as giving very low breathing resistance.



#### **ODOUR FILTER**

Foldable model with an integrated layer of activated carbon that protects against bad-smelling organic vapours and gases below the hygienic limit value.



### **EXHALATION VALVE**

Valve that very effectively ventilates moisture, heat and carbon dioxide and provides comfortable use throughout the working day.



Flexible, soft nose seal, on some models around the whole inside of the mask.



Endless, woven elastic band or two woven elastic bands with 4-point buckles for perfect alignment and fit.



### PROTECTION FACTOR

The protection factor is a measure of the protective equipment's capacity to reduce health risks. The protection factor given by a filtering half mask is determined by the sum of leakage from the environment. The protection factor indicates the mask's ability to clean the air and states how many times, up to the hygienic limit value, that the filtering half mask may be used.

The protection factor concept can be used as a tool when choosing a filtering half mask - the more dangerous air pollution there is in the environment, the higher the protection factor the mask must provide. In EN 529:2005 there is a list of the nominal protection factors that apply for filtering half masks.

The following filtration efficiency and nominal protection factors apply to filtering half masks approved according to EN 149:2001+A1:2009:

Protection class	EN 149:2001+A1: 2009 filtration efficiency, paraffin oil	Nominal protection factor according to EN 529:2005
FFP1*	80%	4
FFP2**	94%	12
FFP3***	99%	50

- \* Not against carcinogenic and radioactive substances, microorganisms (bacteria, viruses, spores), or against biochemical compounds (enzymes, hormones).
- \*\* Not against microorganisms (viruses, spores), or biochemical compounds (enzymes, hormones).
- \* \* \* Protects against all types of particles.

### **CLASSIFICATION AND MARKING**

Filtering half masks are approved in the protection classes FFP1, FFP2 and FFP3 and must satisfy requirements such as: how effectively particles are removed, breathing resistance and inward leakage. A higher class also covers the lower classes. Zekler's filtering half masks are approved in protection classes FFP2 and FFP3.

Filtering half masks are tested and approved according to EN 149:2001+A1:2009. Paraffin oil as an aerosol is used in the test to simulate particles, i.e. masks are exposed to liquid particles, which are normally harder to filter than solid particles with this type of mask. Also, breathing resistance must not exceed specified levels at different airflows.

Filtering half masks can also undergo a Dolomite test according to EN 149:2001+A1:2009, which simulates a heightened level of solid particles similar to situations in e.g. a mine. Masks which after the Dolomite test meet the requirements for filtration efficiency and breathing resistance may be marked D.

Masks marked R = Reusable. These may be used for more than one shift, provided that the manufacturer provides instruction about how the mask should be cleaned. The Dolomite test is mandatory in order to mark masks with R.

Masks marked NR = Not Reusable. These may be used at most during just one work shift and are then discarded. The Dolomite test is optional for masks marked NR.

If the mask is damaged or a sensation of increased breathing resistance is experienced the mask must always be replaced.

#### MARKING

Filtering half masks that have been tested and approved according to EN 149:2001+A1:2009 shall at a minimum be marked with:

- Name/brand/other that identifies the manufacturer/distributor
- Type of mask and protection class
- Number and year of publication of the EN standard
- The CE symbol and designation of the notified body

Batch marking can be included as a supplement.







Comfortable foldable filtering half mask in a modern design. Very efficient filter material combining different types of electrostatic filter media, which gives a very low breathing resistance. Endless woven elastic band makes the mask easy to adjust. Exhalation valve that very efficiently ventilates moisture, heat and carbon dioxide which giving comfortable use during the entire workshift.

- Protection class FFP2, protects against solid and aerosol particles 12 x Hygenic limit value.
- · For use during a max of one workshift (NR).
- Dolomite tested (D).
- Very efficient exhalation valve that leads out heat, moisture and carbon dioxide from the mask.
- Flexible, soft nose seal.
- Endless, woven elastic band for optimal fit.
- Hygienically individually packaged in a plastic bag, alternatively in a blister 3-pack.

#### Complies with EN 149:2001+A1:2009.

Code	Description	Classification	Qty per pack
380680009	1202 valveless	FFP2 NR D	20
380680017	1202 valveless	FFP2 NR D	3
380680025	1202 valveless	FFP2 NR D	500 bulk
380680033	1202 valve	FFP2 NR D	15
380680041	1202 valve	FFP2 NR D	3
380680058	1202 valve	FFP2 NR D	500 bulk



### **ZEKLER 1203V FFP3**

Comfortable, foldable filtering half mask in a modern design. Very efficient filter material combining different types of electrostatic filter media, which gives a very low breathing resistance. Endless, woven elastic band easy to adjust. Exhalation valve that very efficiently leads out moisture, heat and carbon dioxide giving comfortable use during the entire workshift.

- Protection class FFP3, protecting against solid and aerosol particles 50 x Hygenic limit value.
- For use during max one workshift (NR).
- Dolomite tested (D).
- Very efficient exhalation valve that leads out heat, moisture and carbon dioxode from the mask.
- · Flexible, soft nose seal.
- Endless, woven elastic band for optimal fit.
- Hygienically individually packaged in a plastic bag, alternatively in a blister 3-pack.

### Complies with EN 149:2001+A1:2009.

Code	Description	Classification	Qty per pack
380680066	1203 valve	FFP3 NR D	15
380680074	1203 valve	FFP3 NR D	3
380680082	1203 valve	FFP3 NR D	500 bulk



### **ZEKLER 1202VC FFP2**

Comfortable, foldable filtering half mask in a modern design. Very efficient filter material combining different types of electrostatic filter media, which gives a very low breathing resistance. An integrated layer of activated charcoal for comfort even in environments with organic vapour and gases. Endless, woven elastic band easy to adjust. Exhalation valve that very efficiently leads out moisture, heat and carbon dioxide giving comfortable use during the entire workshift.

- Protection class FFP2, protecting against solid and aerosol particles 12 x Hygenic limit value.
- Integrated layer of activated charcoal protecting against organic vapour and gases under the allowed hygienic limit value.
- For use during a max of one workshift (NR).
- Dolomite tested (D).
- Very efficient exhalation valve that leads out heat, moisture and carbon dioxide from the
- · Flexible, soft nose seal.
- Endless, woven elastic band for optimal fit.
- Hygienically individually packaged in a plastic bag, alternatively in a blister 3-pack.

#### Complies with EN 149:2001+A1:2009.

Code	Description	Classification	Qty per pack
380680090	1202 valve and activated charcoal	FFP2 NR D	15
380680108	1202 valve and activated charcoal	FFP2 NR D	3







Comfortable filtering half mask in a modern design. Efficient filter material giving a low breathing resistance. Endless, woven elastic band makes the mask easy to adjust. Soft nose seal in textile for comfortable use.

- Protection class FFP2, protecing against solid and aerosol paritcles 12 x Hygenic limit value.
- For use during a max of one workshift (NR).
- Dolomite tested (D).
- Flexible, soft nose seal in textile material.
- Endless, woven elastic band for optimal fit..

Complies with EN 149:2001+A1:2009.

Code	Description	Classification	Qty per pack
380680116	1302 valveless	FFP2 NR D	20
380680124	1302 valveless	FFP2 NR D	3







### ZEKLER 1302V FFP2

Comfortable, filtering half mask in a modern design. Efficient filter material giving a low breathing resistance. Endless, woven elastic band, easy to adjust. Soft nose seal in textile for comfortable use. Exhalation valve that very efficiently leads out moisture, heat and carbon dioxide giving comfortable use during the entire workshift.

- Protection class FFP2, protecting against solid and aerosol particles 12 x Hygenic limit value.
- For use during a max one workshift (NR).
- Dolomite tested (D).
- Very efficient exhalation valve that leads out heat, moisture and carbon dioxide from the mask.
- · Flexible, soft nose seal in textile material.
- Endless, woven elastic band for optimal fitting.

Complies with EN 149:2001+A1:2009.

Code	Description	Classification	Qty per pack
380680132	1302 valve	FFP2 NR D	10
380680140	1302 valve	FFP2 NR D	3



### **ZEKLER 1303V FFP3**

Comfortable, filtering half mask in a modern design. Efficient filter material giving a low breathing resistance. Two woven adjustable elastic bands for the best fit. Soft nose seal in textile around the entire mask for comfortable use. Exhalation valve that very efficiently leads out moisture, heat and carbon dioxide giving comfortable use during the entire workshift.

- Protection class FFP3, protecting against solid and aerosol particles 50 x Hygenic limit value.
- · For use during a max of one workshift (NR).
- Dolomite tested (D).
- Very efficient exhalation valve that leads out heat, moisture and carbon dioxide from the mask.
- Flexible, soft nose seal in textile material around the entire mask.
- Two woven elastic bands for optimal adjustment for the best fit.
- · Hygienically individually packaged in a plastic bag.

Complies with EN 149:2001+A1:2009.

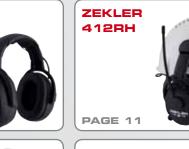
Code	Description	Classification	Qty per pack
380680157	1303 valve	FFP3 NR D	5

# **ZEKLER OVERVIEW**



























































































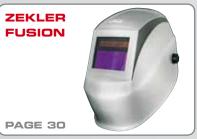


























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