





## **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.

# ★ HEY! BREATHE ★

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?

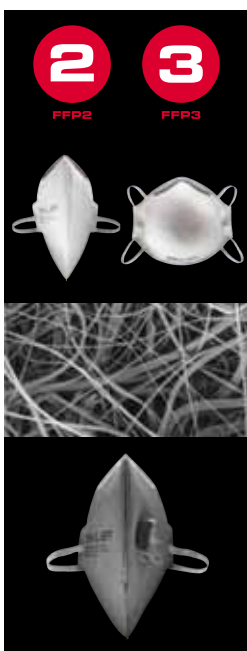
When inhaling the air passes through the filter material; when exhaling the air passes through the filter material or through the exhalation valve. The protective function of filtering half masks consists of high-performance filter material, which is combined with traditional mechanical filtration and 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.

### SEAL

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

### FIT

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.





**2**  
FFP2

### ZEKLER 1202, 1202V 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. 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 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 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



**3**  
FFP3

### 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 Hygienic limit value.
- For use during 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.
- 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



**2**  
FFP2

### 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 Hygienic 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 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
380680090	1202 valve and activated charcoal	FFP2 NR D	15
380680108	1202 valve and activated charcoal	FFP2 NR D	3



**2**  
FFP2

### ZEKLER 1302 FFP2

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, protecting against solid and aerosol particles 12 x Hygienic 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



**2**  
FFP2

### 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 Hygienic 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



**3**  
FFP3

### 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 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 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