



200 Series Filters

Protection against gases, vapours
and dusts, fumes and mists

DATA SHEET

222 ABEK1 P3 R

Cod. 8011113

EN 14387:2004+A1:2008



EN 14387:2004 performance tests		ABEK1P3 R
Minimum breakthrough time (min)	Cyclohexanol C ₆ H ₁₂ (1000 ppm)	> 70
	Chlorine Cl ₂ (1000 ppm)	> 20
	Hydrogen Sulphide H ₂ S (1000 ppm)	> 40
	Hydrogen cyanide HCN (1000 ppm)	> 25
	Sulphur dioxide SO ₂ (1000 ppm)	> 20
	Ammonia NH ₃ (1000 ppm)	> 50
Filter penetration (DOP) (%)	after 3 min	< 0,05
	after 63 min	< 0,05
	After storage	< 0,05
Breathing resistance (mbar)	Inhal. 15 l/min	< 2,2
	Inhal. 47,5 l/min	< 8,2

Characteristics

222 ABEK1P3 R is an anti gas and anti particles filter, so it protects against both gas and pollutant particles. 222 ABEK1P3 R filter is equipped with a special bayonet connection allowing to use it, in pair, on half masks EVO R or EVO S and on full face masks with the same connection.

Application

222 ABEK1P3 R filter protects against organic, inorganic and acid gases and vapours as well as ammonia and organic ammonia derivatives; gases must have a boiling point higher than 65°C. It can be used in the presence of substances as solvents, toxic particles and micro organisms etc.

It is classified in terms of capacity as a class 1 anti gas filter (medium Capacity filter) and as class P3 anti particles filter (high efficiency filter).

Protection

Exposure limit for 222 ABEK1P3 R filter:

with half mask: for gas and vapours 30 x TLV; for dusts, fumes and mists until 30 x TLV.

with full face mask: for gas and vapours 400 x TLV; dusts, fumes and mists until 400 x TLV.

* APF as defined in EN 529:2005 standard

Materials

222 ABEK1P3 R filter is made of:

- filter case: ABS
- gas filtering component: activated charcoal ABEK type
- particle filtering component: pleated part in glass fibre
- Height (thread excluded): 45 mm
- Diameter: 96 mm
- Weight: 140±7 g

These filters can be used on full face masks and half masks

Certification

222 ABEK1P3 R filter meets the requirements of EN 14387:2004+A1:2008 standard and is CE marked, as provided by 89/686/EEC European Directive (in Italy D.Lgs. 475/1992), as a PPE of III category.

Italcert (Notified Body n° 0426) is the responsible of the certification (Art. 10) and of the final product control (Art.11.B). All the products are manufactured in a company that is ISO 9001:2008 certified.

Certification tests

222 ABEK1P3 R filter meets the requirements of 14387:2004+A1:2008 standard and has been submitted to the tests provided by class 1 for the gas component and by class 3 for the particle component.

• Breathing Resistance

The resistance offered from the filter to the air flow must be lower as possible and, in any case, must not be greater than the following values for combined filters ABEK 1 P3 type and class (par. 6.11 of EN 14387 standard): with an air flow of 15 l/min shall not exceed 2,2 mbar and with an air flow of 47,5 l/min shall not exceed 8,2 mbar.

• Gas capacity (for gas component)

222 ABEK1P3 R filter has been submitted to tests according to par. 6.12 of EN 14387:2004 standard, to verify the minimum breakthrough time, when exposed to test gases at determinate concentration. For ABEK1 type filters test gases used are the ones provided by the standard and listed in the table below.

• Filter penetration (for particle component)

Filtering efficiency of the material forming the particle component of the filter is determined using sodium chloride and paraffin oil test aerosols. P3 class provided a minimum filtering efficiency of 99,95 % (filter penetration <0,05%). The filters keep unchanged their filtering efficiency also after the long exposure test (reaching of 120 mg in concentration of test aerosol) and they are certified as reusable (R marking means that they can be used for more than one work shift).

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EN 14387:2004+A1:2008

Application, Limitation, Warning

BLS filters cannot be used in the following conditions:

- when the type and concentration of contaminant is unknown. -when the oxygen content is lower than 17% in volume (which is often the case in closed environments such as wells, tunnels, cisterns, etc).
- when the contaminant is carbon monoxide or an odourless and tasteless gas.
- when certain conditions are dangerous to the worker health and life.
- The filter must not be modified or altered.
- Leave the work area if the respirator becomes damaged, resulting in difficulty breathing and/or faintness.
- Persons whose olfactory sense is altered shall not use filter respirators.
- The use of gas or combined respiratory protective devices during works with open flames or liquid metal droplets may cause serious risk to the operator.

Filter use and maintenance

BLS filters must be used in pair connected to BLS half masks model EVO S and EVO R. Two new filters are packed in a sealed plastic bag. Choose the filter keeping attention to the colour and identification marking and check that the filter is of the correct type for the intended use. Check that the filter is not expired (the expiry date is printed on all the filters; this date shall be valid if the filter has been kept sealed at the recommended storage). Inspect both the filter and facepiece for any breaks or damage. For use, open the sealed packet, fit the two filters to the filter housing on the half mask or full face mask, screwing the filter tightly. In normal use conditions, the shelf life of the filter is not only due to the pollutant concentration but to many other elements difficult to be determined, such as the degree of air humidity, the air temperature, the inspired air volume, the weariness of the worker, etc. The worker shall leave immediately the work area and replace the filters when start to smell the gas odour. At the end of the work shift, the respirator shall be stored in a clean and dry place, according to the storage conditions indicated in the user information. The BLS filters does not require maintenance and does not need to be cleaned, regenerated or blown. Exhausted filters shall be replaced at the same time and dismantled according to the National regulations and considering the substances they have retained.

Storage time: 5 years (factory sealed), as shown on label (pictogram of hourglass)

Storage conditions: temperature range -10°C e +50°C, Relative Humidity < 80%

Minimum unit of sale: box (8 filters)

Technical Details

In order to ensure high hygiene and increase the lifespan of the filter, the filtering paper is folded without the use of any glues.

Each filter is tested:

- filtering efficiency test for protection against particles.
- Breathing resistance and weight for active charcoal

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