



# TECHNICAL SPECIFICATIONS

NSN: 4240-16-001-6825

## MOF-6 COMBINATION PROTECTIVE FILTER

- ✓ 10 years shelf life
- ✓ Very durable material
- ✓ Wide range of usage
- ✓ Comprehensive protection

Chromium free

36 month warranty

Hg resistant

**A2B2E2K2HgP3**



### NOTICE:

**The filter must not be used in an explosive atmosphere and with an oxygen concentration in the ambient atmosphere below 17%!**

**The MOF-6 combination filter complies with the requirements of standards EN 14387:2021.**

In combination with a suitable chemical protective mask, the **MOF-6** filter forms a perfect protection of the individual against organic gases and vapours of organic substances with a boiling point > 65 °C, inorganic gases and vapours, oxide sulphur dioxide and other acid gases and vapours, ammonia and organic amines, against mercury, in particular against solvents, cyclohexane, hydrogen cyanide, hydrogen sulfide, chlorine, hydrogen chloride, mercury vapors and their compounds, ozone and the like. Other chemical substances and their compounds are listed on the website of SIGMA Výzkumný a vývojový ústav, s.r.o. (Research and development institute)

The particulate filter part of the combination filter removes harmful solid and liquid particles, biologically solid and liquid aerosols, radioactive aerosols, dusts, bacteria and viruses from the passing air

The **MOF-6** filter can be used in the army, police and special rescue units, fire brigades, employees of chemical, food and pharmaceutical plants and also for employees in the electronics and foil industry. Furthermore, for foundries, paint shops and the vulnerable population in adjacent areas and, last but not least, in hospitals and laboratories.

### DESCRIPTION

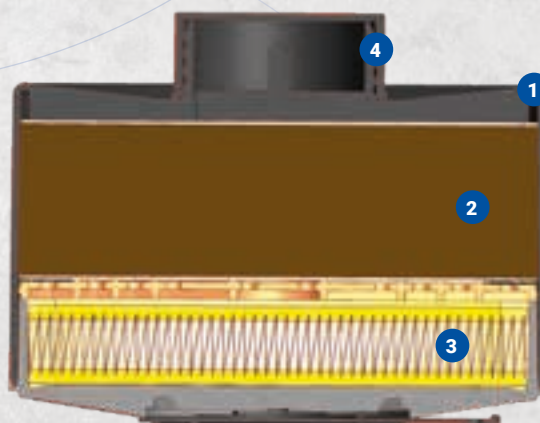
The **filter body (1)** is made of a special, highly durable plastic, which is highly resistant to shocks and damage during use. It is black and has a matte finish.

Gas adsorption is ensured by **active carbon (2)** with chemical impregnation, without chromium content, with metal salts Cu, Ag, Zn and other compounds that ensure the elimination of toxic gases. The physical sorption of gases is ensured by the high specific surface of the sorbent with an area of up to 1350 m<sup>2</sup>/g.

The highly efficient **filter element (3)**, meeting the standard EN 143:2021, is made of a special hydrophobic filter material of the HEPA14 class, which is characterized by excellent filtration efficiency while maintaining minimal breathing resistance.

**The filter thread (4)** Rd 0 x 1/7" meets the EN 148-1:2018 standard and the OZ 40x4 thread corresponds to the GOST 8762-75 standard.

The **MOF-6** filter is non-metallic and non-magnetic.



1 - filter body; 2 - active carbon; 3 - filter element;  
4 - filter thread



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## SPECIFICATION

Parameters	
Diameter x Height	110 x 81mm
Weight	360 g
Thread	Rd 40x1/7" or OZ 40x4
Body shape	comfort

## EFFICIENCY

Examples of efficiency against gaseous substances, according to the NATO standard and EN 14387 are shown below.

Test gas		Test concentration (ppm)	Penetration time (minutes)
HCN	Hydrogen cyanide	4500	> 30
CICN	Chlorocyan	1200	> 60
COCl <sub>2</sub>	Phosgene	2500	> 60
CCl <sub>3</sub> NO <sub>2</sub>	Chlorpicrin	1200	> 200
C <sub>6</sub> H <sub>12</sub>	Cyclohexane	5000	> 35
Cl <sub>2</sub>	Chlorine	5000	> 25
SO <sub>2</sub>	Sulphur dioxide	5000	> 20
NH <sub>3</sub>	Ammonia	5000	> 45
NO <sub>2</sub>	Nitrogen dioxide	2500	> 20
H <sub>2</sub> S	Sulfan	5000	> 60
CHCl <sub>3</sub>	Chloroform	5000	> 45
CH <sub>3</sub> OH	Methanol	5000	> 25
CCl <sub>2</sub> CHCl	Trichlorethylene	5000	> 60
(CH <sub>3</sub> ) <sub>2</sub> CO	Acetone	5000	> 55
C <sub>6</sub> H <sub>5</sub> CH <sub>3</sub>	Toluene	5000	> 60
Hg	Mercury (vapours)	13	>100
O <sub>3</sub>	Ozone	10	> 420

Please note that the penetration time is given for standard laboratory test conditions and does not determine the actual time of real use of the filter. THESE TIMES MUST BE TAKEN

AS INDICATIVE AND CANNOT BE relied on! The actual period of use must be verified on the basis of an assessment of the risk of the likely hazards present in the area of intended use. In addition, it is necessary to take into account the gas concentration, the presence of other gases, the effect of temperature, the direction and speed of the wind flow, the rate of breathing, the performance of strenuous activity and other circumstances.

The resistance time (performance) of the filter itself is mainly dependent on the actual concentration of the given gaseous substance in the specific conditions of use.

## PERFORMANCE

### Respiratory resistance

max. 190 Pa at 30 l/min

max. 650 Pa at 95 l/min

### Permeability

Capture rate of dust, aerosol, bacteria and viruses of at least 99.95%.

## SCOPE OF APPLICATION

### Temperature -15 °C to 50 °C

The filters were exposed to high and low ambient temperatures without harmful effects.

### Humidity 0 % to 95 % RH

The filter retains its production properties in a wide range of humidity thanks to the hydrophobic material of the filter element, which does not transmit moisture to the sorbent/active carbon.

### Rain

The filter retains its efficiency even in heavy rain conditions and is not prone to water ingress.

### Sand and dust

The filter is resistant to sand and dust, but due to the gradual clogging of the pores of the filter element during inhalation, the respiratory resistance has an increasing tendency. If breathing becomes difficult, replace the filter.

## STORAGE

The materials used and the method of construction of the filter were designed so that they retain their functionality and efficiency when stored in the original packaging.

The expected shelf life of the filter (closed and packaged) is 10 years when stored at -10 to +50 °C and <95 % relative humidity.