



TECHNICAL SPECIFICATIONS

NSN: 4240-16-006-9397

OF-02 CBRN COMBINATION PROTECTIVE FILTER

- ✓ 10 years shelf life
- ✓ Very durable material
- ✓ The most comprehensive use
- ✓ The highest possible protection



Chromium free

36 month warranty

Phosgene

99.995 % particle capture rate

A2B2E2K2SXP3

TH3 A2B2E2K2SXP R SL

TM3 A2B2E2K2SXP R SL

NOTICE:

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

The OF-02 CBRN combination filter complies with the requirements of standards EN 14387:2021, EN 12941:1998+A2:2008, EN 12942:1998+A2:2008.

In combination with a suitable chemical protective mask or filter aid with auxiliary ventilation attached to a helmet or hood, the **OF-02 CBRN** 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 phosgene, in particular against solvents, cyclohexane, hydrogen cyanide, hydrogen sulfide, chlorine, hydrogen chloride, nitrogen dioxide, sarin, 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 **OF-02 CBRN** filter is intended for the army, police and special rescue units, fire brigades, employees of chemical, food and pharmaceutical plants, foundries and paint shops and also for the vulnerable population in adjacent areas, hospitals, laboratories and employees in the electronics and foil industry.

DESCRIPTION

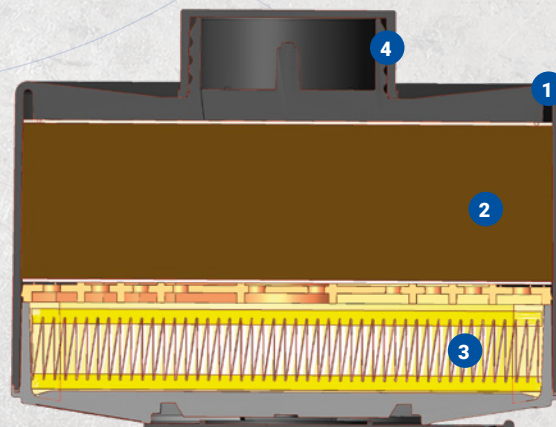
The **filter body (1)** is made of a special, highly durable Noryl™ plastic, which is extremely resistant to shocks and damage during use. It is black and has a matte finish. It was also tested for Yperite penetration, where it lasted more than 24 hours.

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 1500 m²/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 40 x 1/7" meets the EN 148-1:2018 standard and the OZ 40x4 thread corresponds to the GOST 8762-75 standard.

The **OF-02 CBRN** 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	350 g
Thread	Rd 40x1/7" nebo 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	> 40
CICN	Chlorocyan	1200	> 75
COCl ₂	Phosgene	2500	> 75
CCl ₃ NO ₂	Chlorpicrin	1200	> 230
C ₆ H ₁₂	Cyclohexane	5000	> 40
Cl ₂	Chlorine	5000	> 40
SO ₂	Sulphur dioxide	5000	> 30
NH ₃	Ammonia	5000	> 60
NO ₂	Nitrogen dioxide	2500	> 20
H ₂ S	Sulfan	5000	> 80
CH ₂ Cl ₂	Dichloromethane	5000	> 35
CHCl ₃	Chloroform	5000	> 50
CCl ₄	Carbon tetrachloride	5000	> 70
CH ₃ OH	Methanol	5000	> 30
CCl ₂ CHCl	Trichlorethylene	5000	> 70
(CH ₃) ₂ CO	Acetone	5000	> 70
C ₆ H ₅ CH ₃	Toluene	5000	> 70
C ₆ H ₆	Benzene	5000	> 65
C ₄ H ₁₀ FO ₂ P	Sarin (intersection)	250	> 865
O ₃	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. 180 Pa at 30 l/min

max. 600 Pa at 95 l/min

Permeability

Capture rate of dust, aerosol, bacteria and viruses of at least 99.995%.

SCOPE OF APPLICATION

Temperature -30 °C to 70 °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.