



CBRN Filter



NBC-77 SOF CBRN Filter Canister

Type: A2B2E2K2HgSXP3 D R REACTOR

The NBC-77 SOF filter canister in combination with a full-face mask, mouthpiece assembly or PAPR provides reliable protection of air passages against a wide range of harmful and highly toxic substances including all known CBRN agents. Filters are produced with standard round threads according to STANAG 4155 (EN 148- 1) - Rd 40x1/7" or GOST 8762-75 (40x4mm).

Filter components are made of hard plastic. It provides a very robust product which is extremely durable against shock and impact damage in operational use.



Technology for Protection, Utility & Comfort

Technical data		Breathing resistance in Pa		Breathing resistance in Pa	
Diameter	10 mm	@ flow rate 30l/min.		@ flow rate 95l/min.	
Height	85 mm	EN 1)	NBC-77 SOF	EN 1)	NBC-77 SOF
Weight	335 g ±5%	260	<140	980	<600
Storage time	20 years (factory sealed)				
Type and Class		Particle filter efficiency @ flow rate 95 l/m			
A2 - organic gases and vapours	SX - CG, CK, PS	EN	NBC-77 SOF		
B2 - inorganic gases and vapours	P3 - particles	Sodium Chloride NaCl (S)	99,95	>99,999	
E2 - acid gases and vapours	D - dust	Paraffin oil (L)	99,95	>99,999	
K2 - ammonia and amines	R - reusable				
Hg - mercury vapours	REACTOR - radioactive iodine				

Note:

- 1) requirement of European Standard EN 14387+A1
- 2) the filter was tested on dolomite dust clogging
- 3) radioactive iodine and its organic compound - methyl iodide¹³¹ acc. to standard DIN 58621

NBC-77 SOF

A2B2E2K2HgSXP3 D R REACTOR

APPLICATION:

The filter canister in connection with suitable respirator or PAPR provides protection against solid and liquid particles, pepper spray (OC), smoke-producing substances, radioactive particles, bacteria and rickettsia, fungi, toxins, viruses, Riot Control agents (Lachrymators, Sternutators, Vomiting agents), Blister agents (Vesicants), Choking agents, Blood agents, Nerve agents, Incapacitants, Herbicides, Pesticides and TIC, such as bromoacetone, CS, CR, CN, CNC, CNS, CA substances, organic compounds of arsenic - diphenyl- dichlorarsine - CLARK I (DA), diphenylcyanoarsine - CLARK II (DC), adamsite (DM), diphenyldichlorarsine (DA), ethyldichlorarsine (ED), methyldichlorarsine (MD), mustard gas (H), sulphur mustard gas (HD), T-mustard gas, Q-mustard gas, nitrogen mustard gases (HN1, HN2, HN3), lewisite (L), mixed mustard gas (H-L), phosgene oxime (CX), phosgene (CG), diphosgene(DP), chloropicrin (PS), hydrogen cyanide (AC), cyanogen chloride (CK), arsine (SA), G-agents: sarin (GB), cyclosarin (GF), soman (GD), tabun (GA), IVA (GV), V-agents: VX, VR, VE, VG (amiton), VM and toxic industrial chemicals such as: fumes of organic or inorganic acids, hydroxides, organic solvents with the boiling point above 65 °C, ammonia, amines, inorganic and acid gases, agricultural chemical combustion gases, other toxic substances, e.g. benzene, toluene, vinyl chloride, fluorine, hydrogen fluoride, sulphur oxides, chloroacetic acid, aldehydes, mixtures of inorganic acids, and organic substances, mercury vapors, radioactive iodine and its organic compounds, etc.

LIFE TIME:

Breakthrough time of a filter is tested according to EN 14387+A1 at humidity 70% and flow rate 30 l/min, which is equivalent to the volume of air per minute used by an average person carrying out medium heavy work. The approximate life time (usage time) of a filter may, under normal conditions, be calculated by comparing the concentration at the workplace and the minimum Dynamic Adsorption Capacity (DAC) for the filter

$$T = \frac{DAC \times 1000}{AF \times C}$$

- T Approximate usage time in minutes
- DAC Dynamic Adsorption Capacity in grams (see table)
- AF Airflow (air consumption) in l/min (in normal conditions 30 l/min)
- C Concentration of toxic gas in mg/l

Testing Gas	Concentration of testing gas		Breakthrough time in minutes		DAC in grams	
	ppm	mg/l	EN requirement	NBC-77 SOF	NBC-77 SOF	
A2 Cyclohexane	C ₆ H ₁₂	5000	17,5	35	39	20,475
B2 Chlorine	Cl ₂	5000	15	20	45	20,250
Hydrogen Sulphide	H ₂ S	5000	7,1	40	>80	>17,400
Hydrogen cyanide	HCN	5000	5,6	25	50	8,400
E2 Sulphur dioxide	SO ₂	5000	13,3	20	25	9,975
K2 Ammonia	NH ₃	5000	3,5	40	50	5,250
Hg Mercury	Hg	-----	13 mg/m ³	100 hours	>170 hours	>3,900
SX Cyanogen chloride	CICN	2500	6,28	20	25	4,710
Chloropicrin	CCl ₃ NO ₂	5000	33,55	20	44	44,286
Phosgene	COCl ₂	5000	20,24	20	>77	>47,058
REACTOR Methyl iodide ¹³¹	CH ₃ I			2 hours	>2 hours	

STORAGE AND MAINTENANCE:

The filters are sealed in plastic bags by the manufacturer. Store the filters unopened in a clean place at even temperature, most appropriate at -5 to +30°C and relative humidity below 80%. Sealed filters tolerate also conditions of -30 to +50°C and RH below 95%. The storage period (month and year) for filters is marked on the filter label. Do not try to regenerate the filters. Never clean the filters with compressed air or compressed water.

DISPOSAL:

After use, the filters are special refuse. Make sure that they are disposed according to the filtered substance/s (gases or particles) in accordance with current waste treatment regulations. If the product is to be disposed, it should be dismantled from the respirator and disposed as solid waste. Please see local authority regulations for disposal advice and locations.