CBRN filter

filter canister **NBC-1/SL**

Type: A2B1E1K1P3 D R

The 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 (EN148-1)-Rd40x1/7"or GOST8762-75-40x4mm.
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. The canister body (filter housing) can be made in three standard colours.

Standard colours of filter housing:

black **green** **beige (desert tan)**

Technical data		Breathing resistance in Pa		Breathing resistance in Pa	
Diameter	90 mm	@ flow rate 30l/min.		@ flow rate 95l/min.	
Height	85 mm	EN 1)	NBC-1/SL	EN 1)	NBC-1/SL
Weight	205 g	260	<200	980	<800
Storage time	10 years (factory sealed)				

Type and Class		Particle filter efficiency @ flow rate 95 l/m		
A2 - organic gases and vapours	P3 - particles		EN	NBC-1/SL
B1 - inorganic gases and vapours	D - dust	Sodium Chloride NaCl (S)	99,95	>99,99
E1 - acid gases and vapours	R - reusable	Paraffin oil (L)	99,95	>99,99
K1 - ammonia and amines				

Note:
1) requirement of European Standard EN 14387+A1
2) the filter was tested on dolomite dust clogging

Part No: connection thread acc. to EN 148-1 / STANAG 4155 (40x1/7“) - 1701 connection thread acc. to GOST 8762-75 (40x4mm) - 2701

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APPLICATION:

The filter canister in connection with suitable respirator provide 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, chloracetic acid, aldehydes, mixtures of inorganic acids, and organic substances, 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, 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 ppm	mg/l	Breakthrough time in minutes EN requirement	NBC-1/SL	DAC in grams NBC - 1/SL
A2	Cyclohexane	C_6H_{12}	5000	17,5	35	37	19,425
B1	Chlorine	Cl_2	1000	3,0	20	>30	>2,700
	Hydrogen Sulphide	H_2S	1000	1,4	40	>60	>2,520
	Hydrogen cyanide	HCN	1000	1,1	25	>160	>5,820
E1	Sulphur dioxide	SO_2	1000	2,7	20	>30	>2,430
K1	Ammonia	NH_3	1000	0,7	50	>60	>1,260

STORAGE AND MAINTENANCE:

The filters are sealed in plastic bags by the manufacturer. Store the filters unopened in a clean place at eventemperature, most appropriate at -5 to +30°C and relative humidity below 80%. Sealed filters tolerate also conditions of -30 to +50°C and Relative Humidity 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.