

filter canister **OF-07 M**

Type: **A2B2E1SXP3 D R REACTOR**

NSN: **4240-16-007-3490**

The filter canister in combination with a service respirator, provide 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 - 40x4 mm.

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:



Technical data		Breathing resistance in Pa		Breathing resistance in Pa	
Diameter	111 mm	@ flow rate 30l/min.		@ flow rate 95l/min.	
Height	75 mm	EN 1)	OF-07 M	EN 1)	OF-07 M
Weight	265 ± 3% g	260	<130	980	<470
Storage time	20 years (factory sealed)				
Type and Class		Particle filter efficiency @ flow rate 95 l/m			
A2 - organic gases and vapours	P3 - particles	EN	OF-07 M		
B2 - 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	
SX - CG, CK, PS, DMMP	REACTOR - methylodide ¹³¹				

Note:

- 1) requirement of European Standard EN 14387+A1
- 2) the filter was tested on dolomite dust clogging
- 3) the filter is certified as REACTOR P3 acc. to DIN 58621 standard

OF-07 M

A2B2E1SXP3 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, nitrogen dioxide, chloroacetic acid, aldehydes, mixtures of inorganic acids, and organic substances, radioactive methyl iodide¹³¹, 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. Breakthrough time of a filter on CWA is tested according to defense standard COS 841.503 at humidity 80% and flow rate 30 l/min.

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

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 EN/COS requirement	OF-07 M	DAC in grams OF-07 M	
	ppm	mg/l				
A2 Cyclohexane	C ₆ H ₁₂	5000	17,50	35	>35	>18,375
B2 Chlorine	Cl ₂	5000	15,00	25	>28	12,600
Hydrogen Sulphide	H ₂ S	5000	7,10	40	>60	>12,500
Hydrogen cyanide	HCN	5000	5,60	25	>30	>5,040
E1 Sulphur dioxide	SO ₂	1000	2,66	20	>60	>4,860
NBC Cyanogen chloride (CK) ClCN		2500	6,28	20	>30	>5,652
Chloropicrin (PS)	CCl ₃ NO ₂	5000	33,55	20	>30	>30,195
Phosgene (CG)	COCl ₂	5000	20,24	20	>25	>15,180
Sarin (GB)	C ₄ H ₁₀ FO ₂ P	174	1,00	67	>300	>9,000
Mustard gas (HD)	C ₄ H ₈ Cl ₂ S	60	0,40	167	>750	>9,000
Soman	C ₇ H ₁₆ FO ₂ P	135	1,00	67	>300	>9,000
DMMP	C ₃ H ₈ O ₃ P	5000	25,37	35	>35	>26,642
TCM Ammonia	NH ₃	500	0,35	---	>20	>0,210

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.

HUMIDITY INDICATOR:

The indicator is placed in the center of the filter under transparent cover and helps to recognize on first sight if the filter can be safely used. If the filter is unused and properly stored, the indication point is white. If the indicator turns blue, it indicates that the unit pack is compromised and the inside components of the filter started degradation of impregnation due to adsorbed moisture. In this case do not use the filter.

After opening, the indicator can be easily removed by user if needed.

The indicator is an optional accessories.

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.

