FM61EU CBRN FILTER PAIR

These low profile filters are supplied as a pair and are designed with bayonet quick fit for use only with the FM50 mask.

- The twin filter design significantly reduces breathing resistance and improves weight distribution.
- The filters provide protection from CB agents, toxins, and a number of Toxic Industrial Materials/Chemicals (TICs/TIMs) such as particulate matter including radioactive hazards, chlorine, hydrogen sulphide, sulphur dioxide and organic vapours with a boiling point above 65°C and classified as A1B2E1K1P3NR in accordance with EN14387:2004+A1:2008.
- FM61 Filters can be replaced without breaking the protective seal through self-sealing connections.

a. Nerve Agents
"G" Series
"V" Series
Any thickened form of agent

b. Blister Agents
Mustard
Lewisite
Any thickened form of agent

c. Blood Agents
Hydrogen Cyanide
Cyanogen Chloride

d. Riot Control Agents
CS
CN
OC (Pepper Spray)
Chloropicrin

DESCRIPTION

Construction materials

a) The canister body is made of Noryl, a Polyphenylene ether/ polystyrene synthetic thermoplastic polymer. It produces a very robust product, providing extreme durability against shock and impact in operational use. The canister body is black in colour.

b) Gas adsorption is by activated charcoal granules impregnated with metallic salts of copper, zinc, molybdenum and silver to react chemically with agents such as hydrogen cyanide and cyanogen chloride. Excellent protection is provided against physically adsorbed gases such as the nerve agents ("G" and "V" series), mustard gases, phosgene and chloropicrin (see overleaf).

c) The high efficiency particulate filter element is made of PTFE, PET/PE fibres.

d) The FM61EU Filter is non-ferrous and non-magnetic.

EFFECTIVENESS

Against Chemical and Biological Agents

Threat	Dosage ct (mg.min.m^{-3})
Nerve Agent	>80,000
Hydrogen Cyanide	>38,000
Cyanogen Chloride	>38,000
Cyclohexane	>80,000
Hydrogen Sulphide	>25,000
Phosgene	>150,000
Sulfur Dioxide	>50,000

Dosage example: ct of 10,000 means a filter would withstand a threat concentration of 100 mg.m^{-3} for 100 minutes, or a threat concentration of 20 mg.m^{-3} for 500 minutes.

Class	Challenge	Breakthrough Time
A1	Cyclohexane	70 mins
B2	Chlorine	20 mins
B2	Hydrogen Sulphide	40 mins
B2	Hydrogen Cyanide	25 mins
E1	Sulphur Dioxide	20 mins
K1	Ammonia	50 mins

Please note that the times specified in the table above are based on a filter pair.

SPECIFICATION

Specification	
Dimensions	117mm x 96mm x 56mm
Stand off from mask	<44mm
Weight	<230 grams
Attachment	Conformal bayonet quick fit connect

PACKAGING

Each canister pair is sealed in a foil pack. The container is packed into boxes containing 5 filter pairs.

ENVIRONMENTAL

The filter canister retains its operational effectiveness and efficiency with no degradation to its performance under the following environmental conditions:

a) Temperature -30°C to 50°C

Tested in a wide range of environmental conditions by military forces. The filters have been exposed to high ambient temperatures as part of a long running materials evaluation programme, without harmful effects.

b) Humidity range 5% to 100% RH

The filter has been tested in high humidity environments and has found to be effective both in the laboratory and on human subjects under operational conditions.

c) Rain

The filter will retain its effectiveness in heavy rainfall conditions and it is not prone to water ingress.

d) Salt Breeze

The filter will not deteriorate with exposure to salt breezes for 24 hours.

e) Sand and Dust

The filter will not deteriorate when exposed to 24 hours of wind driven sand and dust conditions.

PERFORMANCE

Breathing resistance

37mm of water @ 80 l/min airflow operating as a pair of filters attached to the FM50 mask.

SHELF LIFE STORAGE

Storage temperature -45°C to 70°C

The filters have been exposed to high and low ambient storage temperatures without harmful effects.

Recommended storage condition 20°C ± 10°C, <80% RH

The predicted shelf life of the filter canister (sealed and packaged) is 10 years.

Warnings

- This device does not provide oxygen and must not be used in an oxygen deficient atmosphere or confined space.
- Must not be used for fire fighting or protection against airborne products of combustion.
- Should only be used as part of a managed respirator program.
- Customer must verify that the filter is suitable for the intended application.
- Respirator filters are not suitable for all gases / vapors. Customer should verify that the filter is suitable for gases/ vapors likely to be encountered. Consult Avon if unsure.
- Once exposed to a suspected contaminant, the filter will usually require replacement, and must be disposed of as contaminated waste. Re-use of exposed filters is only permitted in certain controlled circumstances and as part of a managed program. Consult Avon if unsure.

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