

# 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.
- FM61 Filters can be replaced without breaking the protective seal through self-sealing connections.



## a. Nerve Agents

"G" Series

"V" Serie

Any thickened form of agent

## c. Blood Agents

Hydrogen Cyanide Cyanogen Chloride

#### **b.** Blister Agents

Mustard

Lewisite

Any thickened form of agent

# d. Riot Control Agents

C

CI

**OC** (Pepper Spray)

Chloropicrin

# **EFFECTIVENESS**

#### **Against Chemical and Biological Agents**

Threat	Dosage ct (mg.min.m <sup>-3</sup> )
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<sup>-3</sup> for 100 minutes, or a threat concentration of 20 mg.m<sup>-3</sup> for 500 minutes.

Actual use times must be verified on the basis of a risk assessment of the likely hazards present in the intended use area.

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

# **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 FM61 Filter is non-ferrous and non-magnetic.

### Specification

Dimensions: 117mm x 96mm x 48mm

Stand off from Mask: <36mm Weight: <165 grams

Attachment: Conformal bayonet quick fit connect







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# **PACKAGING**

Each canister pair is sealed in a rigid plastic container. 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**

30mm of water @ 85 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 5 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.

The export of the commodities described herein may be subject to U.S. export laws and regulations including but not limited to the Arms Export Control Act or the Export Administration Act.

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