

# PRO2000 FILTERS

FOR RESPIRATORY PROTECTIVE EQUIPMENT



# SCOTT PRO2000 FILTERS

The Scott Pro2000 canister filter range offers a wide choice of filters for specific respiratory challenges, providing high quality and cost efficient protection. Highest specification filter media and materials ensure durability and reliability in the most demanding applications.



- Combining low weight and low breathing resistance, Scott Pro2000 filters are manufactured using superior performance media, giving extended adsorption capacity for gas and combined filters and unrivalled efficiency for the particle element.

Pro2000 filters are fully EN approved to the latest standards, marked 'R' for re-usable (EN 143:2000/ A1:2006), CE certified, and connect via a 40 mm EN148-1 thread. CE approvals: EN143, EN14387. CE0121.

## PRO2000 FILTERS

- Particle filters trap solid and liquid particles, e.g. dusts, smoke, welding fumes, mists, micro-organisms and radioactive particles
- Gas filters protect against hazardous gases and vapours
- Combined filters protect against both gaseous and particulate contaminants

## • PARTICLE FILTERS

- Scott particle filters use only microfibre 'paper' media and do not use any electrostatic filtering method. They are marked 'R' for "reusable" (EN 143/A1:2006)
- PF10 P3 features a high capacity filter element; it removes even the smallest particles with efficiency better than 99,99 %
- The filter element is extremely water-repellent (hydrophobic)

## • GAS FILTERS

- Use the highest grade active carbon materials, additionally treated for best performance
- With a safe margin to EN requirements, Pro2000 gas filters perform effectively using only 220-320 ml of carbon
- Less carbon provides low weight and less resistance - real benefits for the user

## • COMBINED FILTERS

- Combined filters remove hazardous gases and vapours as well as solid and liquid particles
- The particle filter removes aerosol-based particles such as paint droplets. When spraying liquid substances (e.g. spray-painting) a combined filter should be used.

## HOW TO SELECT A FILTER

- Will the atmosphere contain sufficient oxygen throughout the period of exposure?
- Which hazardous substances are likely to be present? What are their physical and chemical properties?
- Which forms do the airborne contaminants take - dust, fibre, mist, fume, microorganism, gas, vapour, radioactive particulates or gases?
- What health effects can these substances have on the body? Special attention is needed if there are several substances that may interact, either by reacting chemically, or by having synergistic adverse health effects.
- What are the concentrations in the atmosphere?
- What are the relevant occupational exposure limit values or the safe exposure levels?

A filtering device should have the correct type of filter matched to the substance(s) from which the wearer needs protection. The maximum mass of filter designated to be connected to a half mask is 300g and to a full face mask 500g. Filters are colour coded, marked with type and class, as well as labelled with the shelf life as factory sealed. The filter label includes the "CE" mark and EN standard number(s), and markings relevant to particular types; if for a powered respirator, the device class.

# PARTICULATE CONTAMINANTS



## Particle filter classification and efficiency EN 143

Class	Efficiency	Max permitted penetration		Protection factor 1)
		NaCl (solid, dusts)	Paraffin oil (liquid, aerosols)	
P1	<b>Low efficiency</b> (against coarse and minor solid particles)	20 %	20 %	With a half mask 4. With a full face mask 4.
P2	<b>Medium efficiency</b> (against solid and liquid hazardous particles)	6 %	6 %	With a half mask 10. With a full face mask 10.
P3	<b>High efficiency</b> (against solid and liquid toxic particles, and radioactive particles and microorganisms)	0.05 %	0.05 %	With a half mask 20. With a full face mask 40.

1) BS 4275

### PARTICLE FILTER OPERATION LIFE

- The filter does not wear out but gets clogged with particles and/or moisture. A particle filter must be replaced when breathing resistance has increased.
- When used against radioactive substances and micro-organisms a particle filter is recommended for single use only.
- Scott particle filters use only microfibre 'paper' media and do not use any electrostatic filtering methods. Pro2000 filters are fully EN approved to the latest standards, marked 'R' for re-usable and CE marked. Shelf life for Scott particle filters is 10 years.

### THE RISK CAUSED BY PARTICLES DEPENDS ON:

- The physical, biological and chemical properties of the contaminant
- Particle size and form
- Concentration in the ambient air and exposure time
- Work pace; the more rapid respiration, the more particles are inhaled

## Physiological effects of particulates on the human body

Inert dusts	Minor effects of concentration: e.g. <5 mg/m <sup>3</sup> slight irritation, > 30 mg/m <sup>3</sup> high irritation.
Mineral dusts, e.g. silica dust, quartz	Detrimental, hazardous effects; changes in lung tissues, cancer
Metal fumes and dusts, e.g. lead, chromium, cadmium, mercury, poisonous particles	Pneumoconiosis, bronchitis, asthma, inflammation, cancer.
Manufactured fibres, e.g. asbestos and other fibres	Pulmonary fibrosis, mesothelioma, cancer.
Airborne radioactive substances	Can cause severe damages, e.g. cancer.
Micro-organisms, e.g. bacteria and viruses	Biological agents can cause diseases, e.g. farmer's lung.

## How far the particles break through depends on the particle size - the smaller the size the more detrimental they are

Particle size	Respiratory tract
> 10 µm	Trachea
> 5 ... 10 µm	Bronchial tube
< 5 µm	Lungs, pleura
< 1 µm	Alveoli
< 0.1 µm	Bloodstream

1 Qm = 0.001 mm



## PARTICLE FORMS

**DUSTS** are airborne solid particles, which are generated during the processing of organic and inorganic substances. Solid particles can be mineral, metal, coal, wood or crop dusts, as well as various fibres.

**FUMES**, evaporating metal creates fumes during cooling.

**SMOKE** consists of small coal and soot particles and potentially other partly incinerated materials. It can include both liquid droplets and solid particles.

**MISTS** are airborne droplets which are created when a fluid disperses in air in the form of small particles.

**MICRO-ORGANISMS**, e.g. bacteria and viruses.

**RADIOACTIVE PARTICLES** are generated from radioactive material.





### THE SERVICE LIFE OF A GAS FILTER DEPENDS ON

- Concentration and characteristics of the workplace contaminant
- Filter capacity, e.g. filter class, compare workplace concentrations to test values
- Breathing volume and work rate
- Humidity of the air
- Temperature of the atmosphere

### Gases and vapours have various effects on health:

- They can irritate the membranes of respiratory organs, the eyes and skin
- They can reach the lungs and cause damage there
- They can be absorbed in the blood and cause temporary or permanent damage to various parts of the body
- They can cause irreparable damage to the nervous system
- The most hazardous gases can intoxicate or suffocate, and even destroy individual bodily organs
- They can be lethal

### Effects of gaseous substances depend on:

- The characteristics of the gas or vapour; e.g. toxicity
- The concentration of the contaminant in the air
- Duration of exposure to the contaminant
- The chemical compound or mixture of substances making up the contaminant
- The ability to react chemically with organic tissue as well as the propensity to be absorbed in the blood
- Personal characteristics, e.g. rate of respiration, blood circulation and sensitivity

# GASEOUS CONTAMINANTS

## GAS FILTER CLASSIFICATION

### Capacity

Class	Capacity	Max concentration of the test gas. EN 14387.	Max concentration of the test gas. EN 12941 and 12942.
		Negative pressure respirators	Powered and power assisted respirators
1	Low capacity	1.000 ppm (0.1 %)	500 ppm (0.05 %)
2	Medium capacity	5.000 ppm (0.5 %)	1.000 ppm (0.1 %)
3	High capacity	10.000 ppm (1 %)*	5.000 ppm (0.5 %)

\* NOTE! The test gas concentration with A-filter in class 3, is 0.8 vol.-% (EN 14387).

### Gas Filter Capacity EN 14387

Filter type	Test gas	Minimum allowed breakthrough time for the test gas. Class / test gas concentration		
		1. Class	2. Class	3. Class
A	Cyclohexane C <sub>6</sub> H <sub>12</sub>	70 min	35 min	65 min
	Chlorine Cl <sub>2</sub>	20 min	20 min	30 min
B	Hydrogen sulphide H <sub>2</sub> S	40 min	40 min	60 min
	Hydrogen cyanide HCN	25 min	25 min	35 min
E	Sulphur dioxide SO <sub>2</sub>	20 min	20 min	30 min
K	Ammonia NH <sub>3</sub>	50 min	40 min	60 min

### Special Filters

Filter type	Test gas	Minimum allowed breakthrough time	Test gas concentration
AX	Dimethyl ether CH <sub>3</sub> OCH <sub>3</sub>	50 min	0.05 vol.-%
	Isobutane C <sub>4</sub> H <sub>10</sub>	50 min	0.25 vol.-%
	Hg-P3	Mercury, vapour Hg	100 hours

### Gas filter capacity with powered air respirators EN 12941 & EN 12942

Filter type	Test gas	Minimum allowed breakthrough time for the test gas. Class / test gas concentration		
		1. Class	2. Class	3. Class
A	Cyclohexane C <sub>6</sub> H <sub>12</sub>	70 min	70 min	35 min
	Chlorine Cl <sub>2</sub>	20 min	20 min	30 min
B	Hydrogen sulphide H <sub>2</sub> S	40 min	40 min	40 min
	Hydrogen cyanide HCN	25 min	25 min	35 min
E	Sulphur dioxide SO <sub>2</sub>	20 min	20 min	20 min
K	Ammonia NH <sub>3</sub>	50 min	50min	40min

### COMBINED FILTERS

Combined filters remove hazardous gases and vapours as well as solid and liquid particles. The particle filter removes aerosol-based particles such as paint droplets. When spraying liquid substances (e.g. spray-painting) a combined filter must be used.



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Pro2000 Filters					
Colour Code	Code	Filter Type	Application	Weight	Storage Time, years
<b>Particle Filter</b>					
	5052670	PF10 P3 PSL R	Solid and liquid particles of toxic agents, radioactive substances and microorganisms, e.g. bacteria and viruses.	96	10
	5052680	PFR10 P3 R	Solid and liquid particles of toxic agents, radioactive substances and microorganisms, e.g. bacteria and viruses.	96	10
<b>Gas Filter</b>					
	5042870	GF 22 A2	Organic gases and vapours, e.g. solvents with a boiling point above 65°C.	195	5
	5042871	GF 22 B2	Inorganic gases and vapours, e.g. chlorine, hydrogen sulphide and hydrogen cyanide.	198	5
	5542972	GF 32 E2	Acid gases and vapours e.g. sulphur dioxide.	306	5
	5042873	GF 22 K2	Ammonia and organic ammonia derivatives.	257	5
	5542874	GF 22 A2B2	Organic and inorganic gases and vapours.	198	5
	5042979	GF 32 A2B2E2K2	Organic, inorganic and acid gases and vapours as well as ammonia.	322	5
	5042970	GF 32 AX	Gases and vapours from organic compounds with a boiling point below 65°C.	268	5
<b>Combined Filter</b>					
	5042670	CF22 A2-P3	Organic gases and vapours, e.g. solvents with a boiling point above 65°C, solid and liquid particles, radioactive and toxic particles and micro-organisms.	241	5
	5543070	PSL R CF32 A2-P3 R		342	
	5042671	CF22 B2-P3 PSL R	Inorganic gases and vapours, e.g. chlorine, hydrogen sulphide, hydrogen cyanide, fluorine, cyanogen chloride, phosgene and solid and liquid particles, radioactive and toxic particles and micro-organisms.	268	5
	5043072	CF 32 E2-P3 R	Acid gases and vapours e.g. sulphur dioxide, hydrogen fluoride, formic acid, nitric dioxide, solid and liquid particles, radioactive and toxic particles and micro-organisms.	385	5
	5042673	CF 22 K2-P3 R	Ammonia and organic ammonia derivatives, solid and liquid particles, radioactive and toxic particles and micro-organisms.	312	5
	5542674	CF22 A2B2-P3/ PSL R	Organic and inorganic gases and vapours, solid and liquid particles, radioactive and toxic particles and micro-organisms	268	5
	5042678	CF22 A2B2E1-P3/ PSL R	Organic, inorganic and acid gases and vapours, solid and liquid particles, radioactive and toxic particles and plus micro-organisms.	268	5
	5042778	CF22 A1E1Hg-P3 PSL R	Organic and acid gases and vapours, mercury compounds, solid and liquid hazardous particles, e.g. radioactive and toxic substances and micro-organisms.	270	5
	5042799	CF32	Organic, inorganic and acid gases and vapours as well as ammonia and organic ammonia derivatives, solid and liquid hazardous particles, e.g. radioactive and toxic substances and micro-organisms.	387	5 *)
	5543699	A2B2E2K2-P3 PSL R CFR32 A2B2E2K2-P3R		387	5
	5042770	CF32 AX-P3 R	Gases and vapours from organic compounds with a boiling point below 65°C, solid and liquid hazardous particles, e.g. radioactive and toxic substances and micro-organisms.	350	5
	5542777	CF32 Reactor-	Mercury and mercury compounds, radioactive iodine and its organic compounds like methyl iodide, solid and liquid hazardous particles, e.g. radioactive and toxic substances and micro-organisms.	331	5
	5043679	Hg-P3 R CFR32 Reactor -Hg-P3 R		331	5
	5542798	CF 32 AB2E2K2Hg-P3	Organic, inorganic and acid gases and vapours as well as ammonia and organic ammonia derivatives, mercury and mercury compounds, solid and liquid particles, radioactive and toxic particles and micro-organisms.	371	5

Key: R = Reusable for the particle filter element  
 PFR and CFR = Reduced opening  
 PSL = Approved with selected Scott powered air respirators

\*) In aluminium foil package 10 y.



## PARTICLE FILTERS



PF10 P3

## GAS FILTERS



GF22 A2



GF22 B2



GF32 E2



GF22 K2



GF22 A2B2



GF32 A2B2E2K2



GF32 AX

## COMBINED FILTERS



CF22 A2-P3



CF22 B2-P3



CF32 E2-P3



CF22 K2-P3



CF22 A2B2-P3



CF22 A2B2E1-P3



CF32 A2B2E2K2 P3



CFR32 A2B2E2K2 P3



CF32 AX-P3



CF 32 REACTOR-HG-P3



CF 22 A1E1HG-P3



CF 32 A2B2E2K2-HG-P3

# FILTER SELECTION GUIDE

Explanations: Breathing apparatus = cannot be filtered or high risk: use SCBA or airline, to be specified at the workplace. Isocyanates: please note the document "Scott filters for use against Isocyanates", available from Scott Customer Services.

## NOTE!

This filter selection guide is applicable only to Scott Safety filters (marked Scott or Protector) and does not offer guidance for other manufacturer's filters. This guide includes Scott's basic application data of filter types, and does not cover all potential airborne contaminants. While we are glad to provide guidance, responsibility for correct filter selection remains with the health and safety professionals in the workplace. Before choosing a filter a risk assessment must be completed. Hazardous substances in the workplace air must be identified and measured. Airborne contaminant levels must be compared with the relevant occupational exposure limit values or the safe exposure levels (see national guidance). The required protection factor, the RPE to be used and the filter type should be specified with consideration to the properties of the hazardous substances and needs of the wearer, the work and the workplace conditions. A filtering device may be used only if the oxygen content of the air is >17 vol.-% and <23 vol.-%, and not if the airborne contaminants are unknown or if the composition of the atmosphere is likely to change disadvantageously. The recommended minimum oxygen level is 19.5%. In case of doubt, insulating respirators which function independently from the ambient atmosphere (e.g. SCBA or Airline) must be used. Gas filters do not protect against particles. Likewise, particle filters do not provide protection against gases or vapours. In case of doubt, use combined filters.

Substance	Scott Filter	Substance	Scott Filter	Substance	Scott Filter	Substance	Scott Filter	Substance	Scott Filter
<b>A</b>		Argon	Use air-line or SCBA	p-tert Butyltoluene	A	Chromium, sol. chromic, chromous salts (as Cr)	P3	2,2-Dichloropropionic acid	A
Abate	P3			<b>C</b>		Clopidol (CoydenR*)	P3	Dichlorvos (DDVP)	A-P3
Acetaldehyde	AX	Arsenic & soluble compounds (as As)	P3	Cadmium, dust & salts (as Cd)	P3	Coal tar	A-P3	Dicrotophos (Bidrin*)	A-P3
Acetic acid	B	Arsenic acid soluble compounds (as As)	P3	Cadmium oxide fume (as Cd)	P3	Cobalt metal, dust and fume (as Co)	P3	Dicyclopentadiene	A-P3
Acetic anhydride	B	Arsine	B	Calcium cyanide	B-P3	Copper fume	P3	Dicyclopentadienyl iron	P3
Acetone	AX	Asbestos	P3	Calcium hydroxide	P3	- Dusts & mists (as Cu)	P3	Dieldrin	A-P3
Acetonitrile	A	Asphalt (petroleum fumes)	A-P3	Calcium oxide	P3	Copper cyanide	B-P3	Diethylamine	AX
Acetyl bromide	A	Atrazine	P3	Camphor, synthetic	A-P3	Cotton dust, raw	P3	2-Diethylaminoethanol	A, K
Acetyl chloride	B or AX	Azinphos-methyl	A-P3	Caprolactam	A-P3	Crag® herbicide	P3	Diethylene triamine	K, A
Acetyl hydroperoxide (Peracetic acid)	B-P3	Azocarbonamide	P3	- Dust	P3	Cresol	A-P3	Diethyl ether, see Ethyl ether	AX
Acetylperoxide	B-P3 or AX-P3	<b>B</b>		- Vapor	A-P3	Crotonaldehyde	A	Diethyl phthalate	A-P3
Acetylene	Use air-line or SCBA	Barium, soluble compounds	P3	Captafol (Difolatan®)	P3	Crufomate	P3	Difluorodibromomethane	AX
Acetylene tetrabromide	A	Barium dioxide	P3	Captan	P3	Cumene	A	Diglycidyl ether (DGE)	A
Acetylsalicylic acid	P3	Barium sulphide, barium chloride, barium chlorate, barium nitrate	P3	Carbaryl (Sevin®)	P3	Cyanamide	B-P3	o-Dihydroxybenzene	P3
Acrolein	AX	Baygon (propoxur)	A-P3	Carbofuran (Furadan®)	P3	Cyanides as CN	B-P3	Diisobutyl ketone	A
Acrylaldehyde	A	Baytex, see Fenthion	A-P3	Carbon black	P3	Cyanogen	B	Diisopropylamine	A, K
Acrylamide	A-P3	Benomyl	A-P3	Carbon dioxide	Use air-line or SCBA	Cyanogen bromide	B2-P3	Dimethoxymethane, see Methylal	AX
Acrylic acid	A, E	Benzaldehyde	A	Carbon disulfide	B-P3 or AX-P3	Cyanogen chloride (CK)	B	Dimethyl acetamide	A
Acrylonitrile	A	Benzene	A	Carbon monoxide	Use air-line or SCBA	Cyclohexane	A	Dimethylamine	K2
Aldrin	A-P3	Benzidine	A-P3	Carbon tetrabromide	A	Cyclohexanol	A	Dimethylaminobenzene, see Xylidine	A
Alkali metals	P3	Benzoin	A-P3	Carbon tetrachloride	A	Cyclohexanone	A	Dimethylaniline (N,N-Dimethylaniline)	A-P3
Allyl alcohol	A	p-Benzoquinone (see Quinone)	A-P3	Carbonyl chloride (phosgene)	B2-P3	Cyclohexanone	A	Dimethylbenzene, see Xylene	A
Allyl amine	K, AX	Benzotrifluoride-isocyanate	A2B2-P3	Carbonyl fluoride	B	Cyclohexylamine	A, K	Cyclotrimethylenenitramine	P3
Allyl bromine	A	Benzoyl peroxide	A-P3	Catechol (Pyrocatechol)	A-P3	1,3 Cyclopentadiene	AX	Cyclopropane	Use air-line or SCBA
Allyl chlorine formate	A	Benzo(a)pyrene	P3	Cellulose (Paper fibre)	P3	D		2,4-D (2,4-Dichlorophenoxy acetic acid) pesticide	P3,
Allyl chloride	AX	Benzyl chloride	B-P3	Cesium hydroxide	P3	DDT (Dichlorodiphenyl-trichloroethane)	P3	DDVP, see Dichlorvos	A-P3
Allyl glycidyl ether (AGE)	A	Beryllium	P3	Chlorinated camphene	Use air-line or SCBA	Decaborane	B-P3	Demeton®	Use air-line or SCBA
Allyl isocyanate	See fact sheet for isocyanates	Biphenyl	A-P3	Chlorine	B	Demeton®	Use air-line or SCBA	Diacetone alcohol (4-hydroxy-4-methyl-2-pentanone)	A
Allyl propyl disulfide	B	Bismuth telluride	P3	Chlorine dioxide	B	Decaborane	B-P3	1,2-Diaminoethane, see Ethylene diamine	K
Aluminium, alkyls	A-P3	Bismuth telluride, Se-doped	P3	Chlorine trifluoride	B2	Diuron	A-P3	Diazinon	A-P3
Aluminium carbide	Use air-line or SCBA	Borates, tetra, sodium salts	P3	Chloroacetaldehyde	A	Diazomethane	B	Dibromide	B2
Aluminium chloride	P3	- Anhydrous	P3	a-Chloroacetophenone	A-P3	1,2-Dibromoethane, see Ethylene dibromide	A	Dibrom®	A-P3
Aluminium fluoride	P3	- Decahydrate	P3	Chloroacetyl chloride	A-P3	Ethylene dibromide	A-P3	2-n-Dibutylaminoethanol	A
Aluminium metal and oxide	P3	- Pentahydrate	P3	Chlorobenzene (Monochlorobenzene)	A	Dibutyl phosphate	A-P3	Dibutyl phthalate	A-P3
Aluminium pyro powders	P3	Boron fluoride-acetic acid compound	B2-P3	o-Chlorobenzylidene malonitrile (CS)	A-P3	Dichloroacetylene	Use air-line or SCBA	Di-sec-octyl phthalate (Di-2-ethylhexylphthalate)	A-P3
Aluminium welding fumes	P3	Boron tribromide	B-P3	2-Chloro-1, 3-butadiene	AX	Diuron	A-P3	Disulfuram	P3
Aluminium, soluble salts	P3	Boron trifluoride	B-P3	Chlorodifluorobromomethane	AX	Diazomethane	B	Disulfoton (Disyston®)	P3
Aluminium sulphate	B-P3	Bromacil	A-P3	Chlorodiphenyl (42% Chlorine)	A-P3	Decaborane	B2	2,6-Di-tert-butyl-paracresol	A-P3
Aminobiphenyl	A-P3	Bromine	B2	Chlorodiphenyl (54% Chlorine)	A-P3	Demeton®	Use air-line or SCBA	Dipropylene glycol methyl ether	A
2-Aminobutane	AX	Bromine pentafluoride	B-P3	Chlorodiphenyl (54% Chlorine)	A-P3	Diuron	A-P3	Diquat	P3
4-Aminodiphenyl	P3	Bromine ethane	AX	1-Chloro-2, 3-epoxypropane (Epichlorohydrin)	A	Dioxathion (Delnav®)	P3	Di-sec-octyl phthalate (Di-2-ethylhexylphthalate)	A-P3
2-Aminoethanol	A	Bromochloromethane	AX	2-Chloroethanol (Ethylene chlorohydrin)	A	Diphénylamine	P3	Diphenylmethane diisocyanate (MDI)	See fact sheet for isocyanates
2-Aminopyridine	K-P3	Bromoform	A	Chloroethylene	AX	Diphénylmethane diisocyanate (MDI)	See fact sheet for isocyanates	Dipropylene glycol methyl ether	A
3-Amino-1,2,4-triazole	A-P3	Butane	AX	bis-Chloroethyl ether	A-P3	Dibromide	A-P3	Diquat	P3
Ammonia	K	Butadiene (1,2-butadiene)	AX	Chloroform (Trichloromethane)	AX	Ethylene dibromide	A-P3	Di-sec-octyl phthalate (Di-2-ethylhexylphthalate)	A-P3
Ammonium chloride fume	P3	Butanethiol	B	Chloroform (Trichloromethane)	AX	Dibromide	A-P3	Disulfuram	P3
Ammonium fluoride	P3	2-Butanone	A	Chloroform (Trichloromethane)	AX	Ethylene dibromide	A-P3	Disulfoton (Disyston®)	P3
Ammonium nitrate	P3	2-Butoxyethanol (Butyl cellosolve®)	A	bis-Chloromethyl ether	A-P3	Dibromide	A-P3	2,6-Di-tert-butyl-paracresol	A-P3
Ammonium perchlorate	P3	n-Butyl acetate	A	1-Chloro-1-nitropropane	A	Diuron	A-P3	Diuron	A-P3
Ammonium sulfamate (Ammate)	P3	sec-Butyl acetate	A	Chloropicrin (PS)	A-P3	Divinyl benzene	A	Dyfonate®	A-P3
n-Amyl acetate	A	tert-Butyl acetate	A	β-Chloroprene	AX	Diuron	A-P3	E	
sec-Amyl acetate	A	Butyl acrylate	A	o-Chlorostyrene	A	Emery	P3	Emery	P3
Amyl alcohol	A	n-Butyl alcohol	A	o-Chlorotoluene	A	Endosulfan (Thiodan®)	P3	Endosulfan (Thiodan®)	P3
n-Amylamine	A or K	sec-Butyl alcohol	A	2-Chloro-1-nitropropane	P3	Endrin	P3	Endrin	P3
Amyl mercaptan	B	tert-Butyl alcohol	A	Chloropiridin (N-Serve®)	A	Epiclorohydrin	A	Epiclorohydrin	A
Aniline & homologues	A	Butylamine	K or B	Chlorpyrifos (Dursban®)	A-P3	EPN (Phosphorothioic acid)	P3	EPN (Phosphorothioic acid)	P3
Anisidine (o-, p-isomers)	A	Butyl chloride	A	Chromates, certain insoluble forms	P3	1,2-Epoxypropane	AX	1,2-Epoxypropane	AX
Antimony and compounds (antimonyvety = Stibine)	B-P3	tert-Butyl chromate (as Cro3)	P3	Chromic acid and Chromates (as Cr)	P3	2,3-Epoxy-1-propanol	AX	2,3-Epoxy-1-propanol	AX
		n-Butyl glycidyl ether (BGE)	A	Chromite ore processing (chromate) (as Cr)	P3	Ethanethiol	AX	Ethanethiol	AX
		n-Butyl lactate	A			Ethanol (ethyl alcohol)	A	Ethanol (ethyl alcohol)	A
ANTU	A-P3	o-sec Butyl phenol	A			Ethion (Nialate®)	P3	Ethion (Nialate®)	P3
						2-Ethoxyethanol	A	2-Ethoxyethanol	A
						2-Ethoxyethyl acetate (Cellosolve acetate)	A	2-Ethoxyethyl acetate (Cellosolve acetate)	A
						Ethyl acetate	A	Ethyl acetate	A

Substance	Scott Filter	Substance	Scott Filter	Substance	Scott Filter	Substance	Scott Filter	Substance	Scott Filter
Ethyl acrylate	A	Isophorone	A	Methyl isobutyl ketone (MIBK)	A	Phenylphosphine	B	Tetramethyl lead (as Pb)	A-P3
Ethyl alcohol (Ethanol)	A	Isophorone diisocyanate	See fact sheet for isocyanates	Methyl isocyanate	See fact sheet for isocyanates	Phorata (Thimet*)	P3	Tetramethyl succinonitrile	A-P3
Ethyl amine	K or AX					Phosdrin (Mevinphos*)	A-P3		
Ethyl amyl ketone (5-Methyl-3-heptanone)	A	Isopropyl acetate	A	Methyl ketone	AX	Phosgene (carbonyl chloride)	B2-P3	Tetranitromethane	B
Ethyl benzene	A	Isopropyl alcohol	A	Methyl methacrylate	A	Phosphine	B	Tetrasodium pyrophosphate	P3
Ethyl bromide	AX	Isopropylamine	K or AX	Methyl mercaptan	B, AX	Phosphoric acid	B-P3	Tetryl (2,4,6-trinitrophenyl-methylnitramine)	P3
Ethylbutyl ketone (3-heptanone)	A	n-Isopropylaniline	A	Methyl parathion	A-P3	Phosphorous (yellow, white)	P3	Thallium	P3
Ethyl chloride	AX	Isopropyl ether	A	Methyl propyl ketone	A	Phosphorus pentachloride	B-P3	4,4'-Thiobis (6-tert-butyl-m-cresol)	P3
Ethylene chlorohydrin	B	Isopropyl formiate	A	Methyl silicate	A	Phosphorus pentasulfide	B-P3	Thiram*	P3
Ethylene glycol, - Particulate	P3	Isopropyl nitrate	B	α-Methyl styrene	A	Phosphorus trichloride	B-P3	Tioglycolic acid	B
- Vapour	A	Isopropyl glycidyl ether (IGE)	A	Methyl vinyl ether	AX	Phthalic acid anhydride	A-P3	Tin, inorganic compounds, except SnH4 and SnO2	P3
Ethylene glycol dinitrate and/or Nitroglycerin	B	<b>K</b> Kaolin	P3	Mevinphos	A-P3	m-Phthalodinitrile	P3	Tin, organic compounds (as Sn)	A-P3
Ethylene glycol methyl ether acetate (Methyl cellosolve* acetate)	A	Ketene	Use air-line or SCBA	Molybdenum (as Mo)	A-P3	Picloram (Tordon*)	P3	Tin oxide (as Sn)	P3
Ethylene oxide	AX	<b>L</b> Lead, inorg., fumes & dust (as Pb)	P3	- Soluble compounds	P3	Picric acid	P3	Titanium dioxide (as Ti)	P3
Ethyleneimine	K2	Lead alkyls	A-P3	- Insoluble compounds	P3	Pival* (2-Pivalyl-1,3-indandione)	P3	Toluene (Toluol)	A
Ethyl formate	AX	Lead arsenate (as Pb)	P3	Monochlorodifluorethane (Freon 142)	Use air-line or SCBA	Platinum (Soluble salts) (as Pt)	P3	Toluene-2, 4-diisocyanate (TDI)	See fact sheet for isocyanates
Ethylidene norbornene	A	Lead chromate (as Cr)	P3	<b>N</b> Naphthalene	A-P3	Polychlorobiphenyls, see Chlorodiphenyls	A-P3		
n-Ethylmorpholine	A	Lead nitrate	P3	Naphthylamine	AX	Potassium hydroxide	P3		
Ethyl silicate	A	Lead sulphate	P3			Propane	Use air-line or SCBA	o-Toluidine	A-P3
<b>F</b> Fensulfothion (Dasanit)	P3	d-Limonene	A	Naphthalene	A-P3	Propargyl alcohol	A	Tributyl phosphate	A-P3
Fenthion	A-P3	Lindane	A-P3	Naphthylamine	K-P3 or A-P3	β-Propiolactone	A-P3	Trichloroacetic acid	B
Ferbam	P3	Lithium	P3	Neon	Use air-line or SCBA	Propionic acid	A	1,2,4-Trichlorobenzene	A
Ferrovandium dust	P3	Lithium hydride	P3	Nickel carbonyl	Use air-line or SCBA	n-Propyl acetate	A	1,1,1-Trichloroethane, see Methyl chloroform	A
Fluorine	B	<b>M</b> Magnesium, powder	P3	Nickel metal	P3	Propyl alcohol	A	Trichloroethylene	A
Formaldehyde	B2	Magnesium oxide fume (as Mg)	P3	Nicotine	A-P3	n-Propyl nitrate	B	Trichlorofluoromethane (Freon-11)	Use air-line or SCBA
Formamide	A	Magnesium nitrate	P3	Nitric acid	E-P3	Propylene	Use air-line or SCBA	Trichloromethane, see Chloroform	AX
Formic acid	E	Magnesium perchlorate	P3	Nitric oxide	Use air-line or SCBA	Propylene glycol dinitrate	B	Trichloronaphthalene	A-P3
Furfural	A	Malathion	A-P3	Nitrogen trifluoride	B	Propylene glycol monomethyl ether	A	1,2,3-Trichloropropane	A
Furfuryl alcohol	A	Maleic anhydride	A-P3	Nitrogen tetroxide	Use air-line or SCBA	Propylene imine	AX	1,1,2-Trichloro 1,2,2-trifluoroethane	Use air-line or SCBA
<b>G</b> Gasoline	AX	Manganese (as Mn)	P3	Nitrogen dioxide	Use air-line or SCBA	Propylene oxide	AX	Tricyclohexyltin hydroxide (Plictran*)	P3
Germanium tetrahydride	B2-P3	Manganese fume (as Mn)	P3	Nitrogen oxide	Use air-line or SCBA	Propyne, see Methyl acetylene	Use air-line or SCBA	Triethylamine	A
Glass, fibrous or dust	P3	Manganese tetroxide	P3	Nitrogen trifluoride	B	Pyrethrum	P3	Trifluorobromomethane	Use air-line or SCBA
Glutaraldehyde	A-P3	Melamine	Use air-line or SCBA	Nitroglycerin	B	Pyridine	A		
Glycerol, mist	A-P3	Mercaptan	B	Nitromethane	B	Quartz	P3	Trimethyl benzene	A
Glycerol trinitrate	A	Mercury (Alkyl compounds) (as Hg)	Hg-P3	1-Nitropropane	B	Quinone	A-P3	Trimethyl phosphite	B
Glycol ethers	A	Mesityl oxide	A	2-Nitropropane	B	Resorcinol	A-P3	2,4,6-Trinitrotoluene (TNT)	B
<b>H</b> Hafnium	P3	Methane	Use air-line or SCBA	n-Nitrosodimethylamine (dimethylnitrosoamine)	A-P3	Rhodium, metal fume and dust (as Rh)	P3	Triorthocresyl phosphate	A-P3
Helium	Use air-line or SCBA	Methanethiol, see Methyl mercaptan	B, AX	Nitrotrichloromethane see, Chloropicrin (PS)	A	- Soluble salts (as Rh)	P3	Triphenylamine	A-P3
Heptachlor	A-P3	Methomyl (Lannate*)	P3	Nitrous oxide (laughing gas)	Use air-line or SCBA	Ronnel	A-P3	Triphenyl phosphate	P3
Heptane (n-Heptane)	A	Methoxychlor	A-P3	Nonane	A	Rotenone	A-P3	Tungsten	P3
Hexachlorobutadiene	A	2-Methoxyethanol (Methyl cellosolve*)	A	Octachloronaphthalene	A-P3	Rouge	P3	Turpentine	A
Hexachlorocyclopentadiene	A	Methyl acetate	AX	Octane	A	<b>S</b> Sarin (GB)	B-P3	Uranium (natural)	P3
Hexachloroethane	A-P3	Methyl acetone	A	Octyl mist, mineral	P3	Selenium	P3	Urethane	A-P3
Hexachloronaphthalene	P3	Methyl acetylene (propyne)	Use air-line or SCBA	Organic dust	P	Selenium hexafluoride	Use air-line or SCBA	<b>V</b> Vanadium, (V2O5) (as V)	P3
Hexafluoroacetone	AX	Methyl acrylate	A	Osmium tetroxide (as Os)	A-P3	Silicon	P3	- Dust	P3
Hexamethyl phosphoramide	A-P3	Methyl acrylonitrile	A	Oxygen	Use air-line or SCBA	Silicon tetrahydride (Silane)	Use air-line or SCBA	- Fume	P3
n-Hexane	A	Methylal (dimethoxyethane)	AX	Oxalic acid	P3	Silver, metal	P3	Valeraldehyde	A
2-Hexanone, see Methyl n-butyl ketone	A	Methyl alcohol (Methanol)	AX	Oxygen difluoride	B2	Sodium	P3	Vinyl acetate	A
Hexone, see Methyl isobutyl ketone	A	Methylamine	K, AX	Ozone	AB-P3, ABEK-P3	Sodium azide	P3	Vinyl benzene, see Styrene	A
sec-Hexyl acetate	A	Methyl amyl alcohol	A	<b>P</b> Paraffin wax fume	P3	Sodium bisulfite	E-P3	Vinyl bromide	AX
Hexylene glycol	A	Methyl n-amyl ketone (2-Heptanone)	A	Paraldehyde	A	Sodium fluoroacetate (1080)	P3	Vinyl chloride	AX
Hydantoin	P3	Methyl bromide	AX	Paraquat, respirable sizes	P3	Sodium hydroxide	P3	Vinyl cyclohexene dioxide	A
Hydrazine	K-P3	Methyl butyl ketone	A	Parathion	A-P3	Sodium metabisulfite	E-P3	Vinylidene chloride	AX-P3
Hydrogen, liquid	Use air-line or SCBA	Methyl cellosolve*	A	Particulate polycyclic aromatic hydrocarbons	A-P3	Soman (GD)	B-P3	Vinyl toluene	A
Hydrogenated terphenyls	A-P3	Methyl chloride	AX	PCB polychlorinated biphenyls	A-P3	Stibine	B2	VX	B-P3
Hydrogen bromide	B-P3, E-P3	Methyl chloroform (1,1,1-Trichloroethane)	A	Pentachlorethane	A	Stoddard solvent	A	<b>W</b> Warfarin	P3
Hydrogen chloride	E-P3	Methyl 2-cyanoacrylate	B2-P3	Pentachlorophenol	AP3	Strychnine	P3	White spirit	A
Hydrogen cyanide	B2	Methylcyclohexane	A	Pentane, isopentane	AX	Styrene monomer	A	Wood dust	P3
Hydrogen fluoride	E-P3	Methylcyclohexanol	A	Perchloric acid	B-P3	Sulfur dioxide	E	<b>X</b> Xylene (o-, m-, p-isomers)	A
Hydrogen peroxide	Use air-line or SCBA	o-Methylcyclohexanone	A	Perchloroethylene	A	Sulfuric acid	E-P3	Xylidine	A-P3
Hydrogen selenide (as Se)	B	Methyl demeton	P3	Perchloroethylmercaptan	B-P3	Sulfur monochloride	B	<b>Y</b> Yttrium	P3
Hydrogen sulfide	B	Methylene acetone	A	Perchloromethyl mercaptan	B-P3	Sulfur hexafluoride	Use air-line or SCBA	<b>Z</b> Zinc chloride fume	P3
2-Hydroxypropyl acrylate	A	Methylene bisphenyl diisocyanate (MDI)	See fact sheet for isocyanates	Perchlorophenol	A	Sulfur tetrafluoride	B	Zinc chromates (as Cr) (incl. Zinc potassium chromate)	P3
<b>I</b> Indene	A	Methylene bromide	A	Phenol	B	Sulfuryl fluoride	B		
Indium & Compounds (as In)	P3	Methyl bromide	AX	Phenothiazine	P3	<b>T</b> 2,4,5-T	P3		
Iodine	B-P3	Methylbutyrate	A-P3	n-Phenyl-β-Naphthylamine	P3	Tabun (GA)	B-P3		
Iodoform	A-P3	Methyl ethyl ketone (MEK)	A	p-Phenylene diamine	P3	Tantalum	P3		
Iron oxide fume (Fe2O3) (as Fe)	P3	Methyl ethyl ketone peroxide	B-P3	Phenyl ether (vapour)	A-P3	TEDP	A-P3		
Iron salts, soluble (as Fe)	P3	Methyl formiate	AX	Phenyl ether-Diphenyl mixture (vapour)	A-P3	Tellurium & compounds (as Te)	P3		
Isoamyl acetate	A	Methyl hydrazine	K2	Phenyl glycidyl ether (PGE)	A	Tellurium hexafluoride (as Te)	A		
Isoamyl alcohol	A	Methyl iodide	Reactor Hg-P3 or AX	Phenylhydrazine	A-P3, K-P3	TEPP	A-P3		
Isobutane	AX	Methyl isooamyl ketone	A	Phenyl mercaptan	B	Terphenyls	A-P3		
Isobutene	A					1,1,1,2-Tetrachloro-2, 2-difluoroethane	A		
Isobutylene	AX					1,1,2,2-Tetrachloro-1, 2-difluoroethane	A		
Isobutyl acetate	A					1,1,2,2-Tetrachloro, ethane	A		
Isobutyl alcohol	A					Tetrachloronaphthalene	P3		
Isocyanates	See fact sheet for isocyanates					Tetraethyl lead (as Pb)	A-P3		
Isohexane	AX					Tetrahydrofuran	A		





## Pro2000 Filters

Used in conjunction with the Scott Safety Respiratory range, Pro2000 Filters offer a high performance solution to a wide range of respiratory hazards. Pro2000 filters can be utilised with both negative pressure and powered air respirators.

# ORDERING INFORMATION

## PRO2000 FILTERS - ACCESSORIES

### Accessories for Pro2000 filters

Part Number	Description
5052691	Prefilter discs Pro2000 (set of 20)
5052692	Prefilter and holder Pro2000 (incl. 2 holders + 6 prefilters)
5052690	Spark arrester Pro2000 (incl. 2 holders + 2 aluminium spark arresters)
5052693	Seal cover Pro2000 LD polyethylene (2 covers)
5052694	Shower cover Pro2000, EPDM

### RESTRICTIONS ON USE

Standard filtering respirators do not protect against certain gases, e.g. CO <sub>2</sub> (carbon dioxide)
The storage time (month and year) for a filter is marked on the filter label. The above-mentioned storage times for Pro2000 filters are for a factory sealed filter package. Filters are sealed in plastic or foil bags by the manufacturer. Manufacturer recommends storage at -10...+50 °C temperature and relative humidity below 75%.
After use, an opened filter must be wrapped closely, if it is likely to be reused, and it must be replaced not later than within 6 months.
If the user identifies the breakthrough of the gas by smell, taste or irritation factor the filter must be replaced.
When a hazardous gas has an olfactory threshold higher than the occupational exposure limit it produces no clear breakthrough sign. In these cases special directions regarding the calculated lifetime are required.
The filter must be changed if the breathing resistance has increased noticeably.
Maximum permitted time for use of the mercury filter Hg-P3 (applies also to filters A2B2E2K2Hg-P3, A1E1Hg-P3, Reactor Hg- P3) is 50 hours (EN 14387).
AX-filter is for single use only, and should be replaced after each shift (EN14387).
Against radioactive substances and microorganisms a particle filter is recommended for single use only.

FOR MORE DETAILED INFORMATION ON FILTER CHOICE, USE, STORING, MAINTENANCE AND DISPOSAL, SEE SCOTT INSTRUCTIONS FOR USE SUPPLIED WITH SCOTT PRODUCTS.



Scott Safety is a global business unit of Tyco International that supplies a variety of industries through manufacturing facilities located in the United States, United Kingdom, Asia, Finland and Australia.  
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