

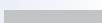





Cartridge & filter classification system

3M™ Gas & Vapour Cartridges

AS/NZS 1716 uses a classification system to identify the different types of contaminants these treated carbon will capture (as mentioned on the previous page). 3M Cartridges follow this marking and colour coding system.

A	Organic Vapours (boiling point > 65°C)	
AX	Organic Vapours (boiling point < 65°C)	
B	Inorganic Gases	
E	Acid Gases	
K	Ammonia	
Hg	Mercury	
G	Organic Compounds with low vapour pressure	

3M™ Particulate Filters

These filters are enhanced with electrostatically charged fibres to trap particulates within the filter media. As particulate filters load up with the contaminant, they typically become more efficient; however, they also become harder to breathe through.

AS/NZS 1716 uses a classification system to identify the different types of particulate protection required.

P1	Particles generated by mechanical processes e.g. grinding, sanding
P2	Particles generated by mechanical and thermal processes e.g. welding
P3	All Particles including highly toxic materials

Protection Factors

Depending on the combination of cartridge/filter and respirator, different levels of protection may be achieved.

Protection factor is the reduction in exposure expected with correct use of a respirator. E.g. A protection factor of 10 means the wearer can expect a 10 times reduction in exposure to the airborne concentration of contaminants.

The higher the protection factor, the greater the reduction in exposure to airborne contaminants for the wearer.

Gas/Vapour Protection

Respirator	Filter	Protection Factor
Half Face Respirator	Class 1	Up to 10
Half Face Respirator	Class 2	Up to 10
Full Face Respirator	Class 1	Up to 50
Full Face Respirator	Class 2	Up to 100
No 3M offering	Class 3	-

Particulate Protection

Respirator	Filter	Protection Factor
Half Face Respirator	P2 Filter	Up to 10
Half Face Respirator	P3 Filter	Up to 10
Full Face Respirator	P2 Filter	Up to 50
Full Face Respirator	P3 Filter	Up to 100

Source: AS/NZS 1716:2012











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3M Gas & filter cartridges

The 3M Cartridges 6000 Series attach to the 3M™ Half and Full face Respirators to provide gas and vapour protection. These cartridges are lightweight and well balanced when fitted to the respirator. Meets the performance requirements of AS/NZS 1716:2012.

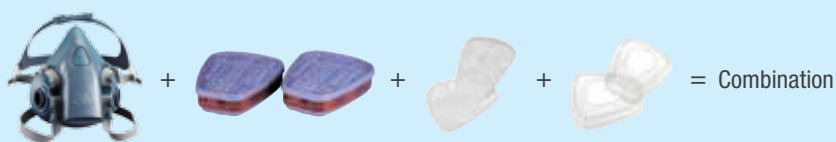
Product Code	Description	Filter/Class Rating	When You Are: (Application/Hazard)
6051 6055	 Organic Vapours (boiling point > 65°C)	A1 (6051) A2 (6055)	Using or cleaning with organic solvents e.g. toluene, xylene and MEK. Also degreasing, mixing, using paint thinners, lacquers and glues. For paint and pesticide spraying* a particulate filter must be used to capture mist droplets (5925).
6057	 Organic Vapours (boiling point > 65°C), Inorganic and Acid Gases	A1B1E1	Working with solvents and/or acid gases such as toluene, chlorine, hydrogen chloride and sulfur dioxide. Degreasing, using paint thinners, acid cleaning, etching and electroplating, acid and fertiliser manufacturing.
6054	 Ammonia and Methylamine	K1	Working with ammonia and methylamine used in the manufacture of fertilisers, refrigeration systems, synthetic fibres and dyes.
6075	 Organic Vapours (boiling point > 65°C) and Formaldehyde	A1 Form	Working with solvents and formaldehyde such as chemical processing, plastic production, fibreboard manufacturing, fighting bush fires, healthcare and laboratory work.
6059	 Multi-Gas: Organic Vapours (boiling point > 65°C), Inorganic and Acid Gases, Ammonia and Methylamine	A1B1E1K1	Working with a variety of chemicals such as solvents (boiling point > 65°C), chlorine, hydrogen chloride, sulfur dioxide, hydrogen fluoride, hydrogen sulfide and ammonia.
6096	 Organic Vapours (boiling point > 65°C), Mercury Vapours and Toxic Particulates	A1HgP3**	Oil and gas refining, healthcare when removing amalgam or wherever mercury vapours may exist e.g. spillages.
6098	 Low Boiling Point Organic Vapours (boiling point <65°C) and Toxic Particulates	AXP3**	Working with highly volatile solvents such as methanol, 1,3-Butadiene or Acetaldehyde in chemical plants, composites manufacturing or coatings. Filter is single use only and must be worn with a 3M Full Face Respirator.
6099	 Multi-Gas and Particulates: Organic Vapours (boiling point > 65°C), Inorganic and Acid Gases, Ammonia, Methylamine and Particulates	A2B2E2K2P3** Multi-Gas Class 2	Exposed to higher concentrations where Class 2 protection is required. Working with a variety of chemicals (refer to 6059) as well as particulates. Must be worn with a 3M Full Face Respirator.

* Not to be used when spraying isocyanate based paints

** P3 Filters used when a higher protection factor is required. P3 Protection achieved only when worn with a 3M Full Face Respirator

For protection against a combination of gases, vapours and particulates, a combination is required.

Use the 3M™ 501 retainer to attach the particulate filter to the cartridge as shown:












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Particulate filters

The 3M™ 2000, 5000 and 6000 Series Particulate Filters attach to the 3M™ Half and Full Face Respirators to provide particulate protection. These filters are lightweight and provide low breathing resistance. They are made from 3M high performance filter media for effective filtration efficiency. Meets the performance requirements of AS/NZS 1716:2012.

Product Code	Description	Filter/Class Rating	When You Are: (Application/Hazard)
2125	 Particulates	P2	Creating certain dusts, mists and fumes such as sanding, grinding, cutting, drilling metal, masonry, wood and concrete.
2128	 Particulates, Ozone and Nuisance Level* Acid Gas and Organic Vapours with Low Vapour Gases	GP2	Creating welding fume, ozone, polishing and grinding particles when welding or fabricating. Also for spraying pesticides or herbicides with vapour pressure < 1.3 Pa @ 25°C.
2135	 Toxic Particulates	P2/P3**	Working with toxic particulates such as asbestos (refer to Government guidelines***) and beryllium.
2138	 Toxic Particulates, Nuisance Level* Acid Gases and Organic Vapours with Low Vapour Pressure	GP2/GP3**	Working with toxic particulates such as mould remediation. Also for nuisance level* acid gases and spraying pesticides or herbicides with vapour pressure < 1.3 Pa @ 25°C.
2076	 Particulates and Hydrogen Fluoride	P2(HF)	Working with hydrogen fluoride and creating particulates such as dust and mist. Applications include working in certain chemical and fertiliser plants.
6035	 Toxic Particulates	P2/P3**	Carrying out lead or mould remediation. Also for certain asbestos tasks (refer to Government guidelines***). Ideal if requiring a protective casing to deflect sparks and splashes.
6038	 Toxic Particulates and Hydrogen Fluoride, Nuisance Level* Organic Vapour and Acid Gas	P3(HF)**	Working with hydrogen fluoride and creating toxic particulates. Applications include working in certain chemical and fertiliser plants. Ideal if requiring a protective casing to deflect sparks and splashes.
5925 5935	 Particulates	P2 P3***^	Needing protection against dusts, mists (including oil based particles) and fumes when fitted to 6000 series cartridge with the 501 retainer.
501	 Particulate Filter Retainer	-	Attaching 5925 or 5935 filter to 6000 series cartridges.

* Nuisance Levels are those levels below the Workplace Exposure Standard (WES)

** P3 Filters used when a higher protection factor is required. P3 Protection achieved only when worn with a 3M Full Face Respirator

*** Refer to Australia State OHS guidelines or New Zealand Ministry of Business, Innovation & Employment Guidelines (previously known as Department of Labour)

^ Available in Australia only

