

The Different Classes of Fire are:

Class A – Combustible solids such as wood, paper, cloth or plastic

Class B – Flammable liquids such as petrol, Kerosene or paint

Class C – Flammable gases such as LPG gas or natural gas

Class D – Combustible metals such as aluminium or magnesium

Class E – Electrically energised equipment such as short-circuited machinery or overloaded electrical cables.

Class F – Cooking fats and oils such as vegetable oil, fats and lard.

A fire requires three key elements to thrive. These are oxygen, heat, and fuel. Fire extinguishers work by removing at least one of these three key elements.

An easy way to identify each type of fire extinguisher is by the different coloured bands found on the top of each cylinder.

This band allows us to identify what type of fire extinguisher it is from a distance, therefore, allowing us to recognise which fire to use it for.

Dry Powder Fire Extinguishers



Dry chemical fire extinguishers or otherwise known as ABE or BE are the most popular type of extinguisher in New Zealand.

They can fight multiple classes of fire and are commonly installed in offices, homes and factories.

A dry powder fire extinguisher is identified by its all red cylinder and white band that runs around the top of the tank.

Fire Extinguishers

In New Zealand, you can find two types of dry powder fire extinguisher.

ABE Fire Extinguishers

Due to their wide variety of uses, the ABE dry chemical powder extinguisher is by far the most used in New Zealand.

As the name suggests, it can be used to fight fires from class A, B and E.

ABE fire extinguishers contain a chemical powder called [monoammonium phosphate](#) which extinguishes the fire by melting over the fuel source.

Using a powder fire extinguisher in a confined space or indoors can cause poor visibility, and may make it difficult to breathe.

BE Fire Extinguishers

The BE fire extinguisher is not as commonly used. These fire extinguishers are used to fight Class B and E fires. The chemicals usually found in BE extinguishers are sodium bicarbonate or potassium bicarbonate which smothers the fire and extinguishes it.

Carbon Dioxide Fire Extinguishers



Carbon dioxide, also known as CO₂, is recommended for use on class E fires.

They are identified by the black band running around the top of the red cylinder.

CO₂ fire extinguishers contain a non-conductive and non-corrosive extinguishing agent, therefore, will cause no damage to electrical equipment.

This type of fire extinguisher is often found in areas such as electrical server/data rooms, switch rooms, or next to electrical machinery.

Carbon dioxide works by removing the oxygen element from the fire.

Foam Fire Extinguishers



Foam fire extinguishers can also be referred to as AFFF extinguishers due to the aqueous film foaming foam that it contains.

Foam fire extinguishers are used for class A and B fires.

It is simple to identify a foam fire extinguisher by the blue band that runs around the top of the cylinder.

When foam fire extinguishers are used to extinguish a fire, they remove the element of oxygen by creating a blanket of foam on top of the fuel source of the fire as well as creating a cooling effect from the water.

AFFF fire extinguishers are generally used within warehouses, petrol stations and storage facilities and are not recommended for use in kitchens on class F fires.

Wet Chemical Fire Extinguishers



Wet chemical fire extinguishers are used for class A and F fires.

They are the only type of fire extinguisher recommended for use on class F fires.

Fire Extinguishers

You can identify wet chemical extinguishers by the oatmeal coloured band running around the top of the cylinder.

It is highly suggested that they are installed in commercial kitchens.

Wet chemical fire extinguishers contain a solution of potassium; this solution smothers the fire and removes the element of heat.

A wet chemical fire extinguisher must never be used on Class E fires.

Water Fire Extinguishers



Water fire extinguishers are the commonly found both domestically and commercially and are recommended for use on class A fires.

The all-red cylinder can identify these extinguishers with no coloured band.

Water fire extinguishers are often found in storage facilities and warehouses.

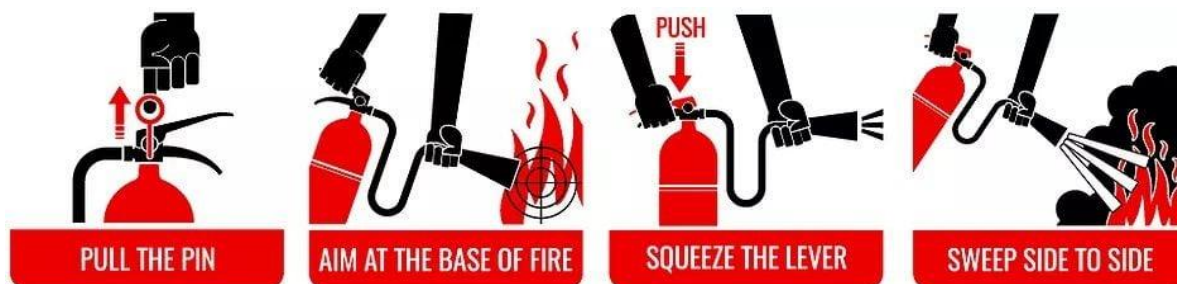
As with wet chemical and foam extinguishers, it's important to remember that water fire extinguishers should never be used on a class E fire as it would potentially put you at risk of electrocution.

How to use a Fire Extinguisher

All fire extinguishers in New Zealand require the PASS technique to operate














The PASS technique is as follows...

Fire Extinguishers



- Pull the pin.
- Aim it at the fire.
- Squeeze the handle.
- Sweep from side to side.

Fire Extinguisher Type And Use Chart

	A Wood, Paper & Plastic 	B Flammable & Combustible Liquids 	C Flammable Gases 	E Energised Electrical Equipment 	F Cooking Oils & Fats 	Notes: *Limited indicates that the extinguishant is not the agent of choice for the class of fire, but that it will have limited extinguishing capability. Class D fires involving combustible metal(s) use only special purpose extinguishers - please seek expert advice.
 Powder ABE	✓	✓	✓	✓	✗	Special Powders are available specifically for various types of metal fires. Seek expert advice.
 Powder BE	✗	✓	✓	✓	✓	Special Powders are available specifically for various types of metal fires. Seek expert advice.
 Carbon Dioxide (CO₂)	✓	✓	✗	✓	✗	Generally not suitable for outdoor fires. Suitable only for small fires.
 Water	✓	✗	✗	✗	✗	Dangerous if used on flammable liquid, energized electrical equipment and cooking oil/fat fires.
 Foam	✓	✓	✗	✗	✓	Dangerous if used on energized electrical equipment.
 Wet Chemical	✓	✗	✗	✗	✓	Dangerous if used on energized electrical equipment.
 Fire Blanket	✗	✗	✗	✗	✓	Use blanket to wrap around a human torch. Ensure you replace the blanket with a new one after use.
 Fire Hose Reel	✓	✗	✗	✗	✗	Ensure you maintain a path of egress between you and the nearest exit.

- From <https://www.bci.nz/fire-extinguisher-types-nz/>