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A Guide to Fire Classes
Though all fires have the potential to endanger lives and destroy businesses, it is important to recognise the differences between the various types, known as fire classes. The class of a fire is determined by the type of fuel that is burning, and how these fires are tackled varies depending on its class.
Fires in which the burning fuel consists of combustible solids (sometimes known as ‘carbonaceous materials’), such as wood, paper, fabrics etc., are referred to as Class A. These should preferably be extinguished using water extinguishers, marked with a red stripe, although foam (cream stripe), wet chemical (yellow stripe) and dry powder (blue stripe) will also work.
Flammable liquids are the cause of Class B fires, such as petrol, ethanol, methanol and kerosene - all of which are found in a number of everyday items. Class B fires should never be tackled with water, and instead foam (cream stripe), dry powder (blue stripe) or CO2 (black stripe) extinguishers should be used.
Class C fires are the result of flammable gasses being ignited, including butane, propane, methane and natural gases. Dry powder (blue stripe) extinguishers are necessary to put out a Class C fire, and, as with Class B, water should be avoided at all costs.

[Though flammable liquids and gasses are grouped together as Class B fires in the USA, this is not the case globally.]
Any blaze caused by burning metals are defined as **Class D fires**. Often extreme in nature, fuel can include alkali and alkaline metals (lithium, magnesium etc.) as well as some group 4 elements. Rare, due to the excessive temperatures needed to ignite flammable metals, **Class D fires** must be tackled with a specific **dry powder** (blue stripe) extinguisher (L2 or M28) that includes graphite, copper and sodium chloride-based powders. Without the proper facilities to suppress a **Class D** fire, they can quickly spread, potentially igniting other combustible materials within the vicinity to cause a simultaneous **Class A** fire.
Electrical fires are quick to spread, and attempting to suppress them in the incorrect fashion could significantly increase their size and ferocity. **Dry powder (blue stripe)** or **CO2 (black stripe)** extinguishers should be used, and water should be avoided at all costs. As water conducts electricity, spraying an electrical fire with it can cause the current to travel back up the stream and potentially electrocute the operator. Technically, there is no such thing as a Class E fire in European fire classes, but the term is often used to define those blazes involving electricity.

[It is important to note that these fires are officially referred to as Class E in Australia, and Class C in the USA].
Class F fires consist of cooking oils and fats that have been ignited, and could easily be considered Class B fires under certain conditions. The fact that far greater temperatures are necessary to cause a blaze with these materials, it has been designated its own fire class, and should be tackled using wet chemical (yellow stripe) extinguishers.

Common in kitchens (for obvious reasons), a fire blanket is often the best solution for smaller cooking oil/fat fires, eradicating the need to clean up any debris from the use of chemical suppressants.

[Note: Class F fires are referred to as Class K in the USA.]
About

Established in 1999, Elite Fire have over a decade's worth of experience and have earned a place as specialists within the fire safety industry. We have carefully pieced together an extensive team of fire safety professionals, with a combined industry experience of over 150 years, to enable us to deliver our first class products, services and advice. We supply, install and maintain a huge selection of fire safety equipment, only using the best, most established manufacturers.

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