

FIRE CLASSIFICATION



Not all fires are the same.
Different fuels create different fires.



Fires can be separated into 5 different categories, depending on the type of fuel that's burning.



Categorising fires in this way makes it easier to choose the most appropriate method of fighting the fire as some fire extinguishers are more suited for use on certain types of fires than others.

In the UK, fires are classed using the European Standard Classification of fires, which is recognised across the whole of the EU.



CLASS A – ORDINARY COMBUSTIBLE FIRES.



These are probably the most common type of fire. They occur when materials become heated to their ignition temperature and will continue to burn as long as there is heat, oxygen and fuel to burn. Materials involved in these types of fires include paper, wood, textiles, rubber, some plastics and other organic carbon based compounds.

CLASS B – FLAMMABLE LIQUIDS



Flammable liquids are those that have an ignition temperature of less than 100°C.

These liquids also have a low flashpoint, which means that they burn easily.

The flashpoint is the temperature at which a substance gives off enough vapour to be ignited.

These liquids can however burn at any temperature if a source of ignition, such as a spark or naked flame is supplied.

Examples of liquids that are flammable include petrol, kerosene and alcohol. Fires involving these give off a lot of heat and tend to spread very quickly. They also produce thick, black toxic smoke, which can make these fires difficult to fight.



CLASS C – FLAMMABLE GASES



Flammable gases such as butane, propane and petroleum gases have the potential to create an explosion, if triggered by a single spark.

For this reason flammable gases have to be stored securely in sealed containers.

The LEL (lower explosive limit) states the lowest concentration of flammable gas that will burn in air.

This is usually around 5%, which shows just how big the danger is of potential explosions.

Fires involving flammable gases are one of the most dangerous types of fire to fight.

CLASS D – METAL FIRES



Certain metals and powdered metals can burn if ignited, although it requires a lot of heat to ignite most metals, as they are good conductors and transfer heat away quickly to their surroundings.

Powdered metals and metal shavings are easier to ignite than solid lumps of metal, so pose a higher fire risk.

ELECTRICAL FIRES

Short circuits, overloaded switchboards, faulty equipment and damaged wiring can all cause electrical fires.

Electrical fires are not strictly a fire class of their own, as electricity is a source of ignition as opposed to a fuel.

They are still important to mention however as they have their own special fire safety requirements.

CLASS E – COOKING OIL FIRES



Fires involving cooking oil and fats are common both in homes, businesses and professional kitchens.

They pose a very difficult challenge to extinguish, due to the high temperatures involved.

Simply trying to cool the fire with water will not work; in fact using water on a burning pan is likely to cause a rapid spreading out of the flames, making the fire worse and potentially injuring anyone in its vicinity.

Tackling fires is best taken care of by professionals.

If you spot a fire, get out, stay out and call the fire brigade.

Nothing you do, is worth getting hurt for.

TAKEAWAY

