



# Health & Safety

## Fire Extinguisher Guide

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## 1. Introduction

Fire extinguishers are provided throughout Edinburgh Napier University premises and are supplied and maintained through Property & Facilities. They are located at specific points throughout the premises in accordance with fire safety legislation and regulations, fire risk assessment and any identified risks.

There are various different types of extinguishers in use throughout Edinburgh Napier University, which are designed to tackle different types of fires. It is vitally important that the appropriate type of fire extinguisher is selected to tackle any fire which has ignited.

Raise the alarm by breaking glass at the nearest fire call point /  
call the Scottish Fire & Rescue Service (999)

Then extinguish the fire using the nearest appropriate extinguisher  
**only if you have been trained to do so, you are confident in their use  
and you are not taking any personal risk.**

**If in any doubt, do not attempt to use any fire extinguisher or firefighting equipment and  
evacuate the building.**

## 2. Water Extinguishers

### WATER - Colour RED

- ✓ Suitable for use on Class A fires: woods, papers, textiles, etc.
- ✗ DO NOT USE on live electrical equipment, burning oils or fats (Class B, C, D & F fires).

### Extinguishing action:

- Cooling and smothering of the burning material by water.

### Method of Use:

- The jet should be directed at the base of the fire and kept moving across the area of the fire, back and forth in a sweeping motion.
- Any hot spots should be sought out after the main fire has been extinguished.
- Always discharge the extinguisher fully.

If 1 fire extinguisher has not extinguished the fire, the operator must then evacuate the building and not attempt to use any further extinguishers.

### 3. Carbon Dioxide (Co2) Extinguishers

**CARBON DIOXIDE (Co2) - Colour ALL BLACK or RED WITH BLACK LABEL**

- ✓ Suitable for use on electrical fires and equipment but may also be used for both Class A or B fires.
- ✗ Fumes from Co2 extinguishers can be harmful in confined spaces where there is a danger that the discharge may be inhaled. The area should therefore be thoroughly ventilated as soon as the fire has been extinguished.

#### **Extinguishing action:**

- Vaporising liquid gas which smothers flames by displacement of oxygen.

#### **Method of Use:**

- On fire involving **electrical equipment**, switch off the power at the mains and aggressively direct the discharge into any opening using a sweeping motion until the fire is extinguished.
- Always completely discharge the extinguisher fully, taking care to avoid holding the discharge horn as this can cause cold burns to the hands.
- On **contained or spilled liquids** direct the discharge at the closest edge of the fire and with a sweeping motion drive the fire towards the far edge until extinguished.

#### **Warning:**

Co2 has a limited cooling effect on Class A and Class B fires with care being taken to ensure the fire does not re-ignite.

If 1 fire extinguisher has not extinguished the fire, the operator must then evacuate the building and not attempt to use any further extinguishers.

## 4. Foam Extinguishers

**FOAM - Colour ALL RED WITH A CREAM LABEL**

✓ Suitable for use on Class A and B fires.

✗ **DO NOT aim the jet directly into the surface of the liquid, as this will drive the foam beneath the surface rendering it ineffective. It may also splash the fire causing it to spread. Do not use on live electrical equipment.**

**Extinguishing action:**

- Forms a foam blanket on the surface of the fire. Both cools and smothers the fire.

**Method of Use:**

- **On Class A fires**, the directions for water extinguishers should be followed.
- **On Class B fires**, if the fire is in a container, direct the jet at the inside far edge of the container or at an adjoining vertical surface above the level of the burning liquid.
- The aim is to produce a blanket of foam across the burning liquid.
- If this method is not applicable, direct the jet with a gentle sweeping motion, dropping the foam onto the liquid.

If 1 fire extinguisher has not extinguished the fire, the operator must then evacuate the building and not attempt to use any further extinguishers.

## 5. Dry Powder Extinguishers

**DRY POWDER – Colour RED WITH A BLUE LABEL**

- ✓ Suitable for use on: Class A, B, C and electrical fires.
- ✗ Powder has a limited cooling effect and care should be taken to ensure the fire does not re-ignite.

### **Extinguishing action:**

- Knocks down flames and on burning solids melts down to form a skin, smothering the fire. Has some cooling effect.

### **Method of Use:**

- The discharging nozzle should be directed at the base of the flames and, with a rapid sweeping motion, the flames should be driven towards the far edge of the fire until extinguished.
- Safe on live electrical equipment although does not readily penetrate spaces inside equipment, thus the fire may re-ignite.
- Beware of the “flash” effect when the powder touches the fire.

If 1 fire extinguisher has not extinguished the fire, the operator must then evacuate the building and not attempt to use any further extinguishers.

## 6. Wet Chemical Extinguishers

### WET CHEMICAL – Colour RED WITH A YELLOW LABEL

✓ Suitable for use on some Class A fires and Class F (involving cooking fats/oils) fires.

✗ Do not use on Class B, C, D and electrical fires.

#### Extinguishing action:

- The extinguishing agent extinguishes the fire by making chemical changes to the cooking oil via 'saponification', in this case the oil becomes a soap like solution which is non-combustible. The water content will help lower the temperature of the flammable liquid.

#### Method of Use:

- Wet chemical extinguishes fat/oil fires by covering the flammable liquid with a foam blanket which then forms a crust on top of the cooking oil or fat, thus cutting off the oxygen supply from the combustible process. Spray it in slow circular motions.
- For our larger industrial kitchen equipment, a fixed firefighting system is in place.

If 1 fire extinguisher has not extinguished the fire, the operator must then evacuate the building and not attempt to use any further extinguishers.