

THE PORTABLE AND WHEELED FIRE EXTINGUISHERS

There are four main types of classification and combinations for which specific kinds of fire extinguishers can be used. The table below points out the proper agent to use for each case of fire:

| Class of fire | Type of hazard | Water | Foam | ABC Dry Chemical | CO ₂ | Halon |
|---------------------|--|-------|------|------------------|-----------------|-------|
| A | Ordinary Combustible Wood, Cloth, Paper Rubbish | Yes | Yes | Yes | No | No |
| B | Flammable Liquids and Grease, Gasoline, Oil, Paint, Grease, Natural Gas, Manufactured Gas | No | Yes | Yes | Yes | Yes |
| C | Electrical Equipment Wiring, Controls, Panels, Motors | No | No | Yes | Yes | Yes |
| A + B | Combination of Ordinary Combustible and Flammable Liquids and Gases | No | No | Yes | No | No |
| A + C | Combination of ordinary Combustible and Electrical Equipment | No | No | Yes | No | No |
| B & C | Combination of Flammable Liquids and Gases and Electrical Equipment | No | No | Yes | Yes | Yes |
| A, B & C | Combination of Ordinary Combustible and Flammable Liquids & Gases and Electrical Equipment | No | No | Yes | No | No |



Carbon dioxide extinguishers

Carbon Dioxide extinguishers should be of black colour. CO₂ is stored in these extinguishers as a liquid under pressure and is discharged onto the fire as an electrically non-conductive gas, which extinguishes burning material by excluding oxygen.

Moreover, CO₂ is a clean, dry gas and a non-conductor of electricity. It leaves no residue and can be used on delicate electric equipment.

Dry powder extinguishers

Dry powder extinguishers should be of blue colour. BC powder is a foam compatible fire extinguishing dry powder based on sodium bicarbonate with flow and moisture repellent additives.

ABC powder is a fire extinguishing dry powder with a high ammonium phosphate content having the ability to form an oxygen excluding crust over hot surfaces.

Foam extinguishers

Foam extinguishers should be of yellow colour. For inflammable liquid fires it is essential to choose the foam concentrates suitable for the specific fire. The following foam concentrates are available for various fire types:

| | | |
|---|----------|---------------------|
| 1. Fluoroprotein foam | 3% | Low expansion foam |
| 2. AFFF (Aqueous Film Forming Foam) | 3% or 6% | Low expansion foam |
| 3. Protein foam | 3% or 6% | Low expansion foam |
| 4. Alcohol resistant fluoroprotein foam | 6% | Low expansion foam |
| 5. Alcohol resistant AFFF foam | 6% | Low expansion foam |
| 6. Synthetic foam | 3% | High expansion foam |

Protein Foam Concentrate – Regular

Standard or “Regular” protein Foam can be applied on flammable liquids as well as on toxic non-flammable liquids to reduce vapor release.

Fluoroprotein Foam Concentrates Plus – F & FP

The best form of protein based foam liquid combining rapid-fire knockdown with excellent burn back resistance. Stable and yet fluid foams, which quickly smother fires involving hydrocarbons, may be produced using low expansion equipment.

Alcohol Resistant Aqueous Film Forming Foam Concentrate

All-purpose AFFF is an alcohol resistant type foam liquid (AR) specially formulated to extinguish alcohol or polar solvent fuel fires in addition to fires involving hydrocarbon fuels.