

Classification of Fire Extinguisher

Learn about the different types of fire extinguishers and understand which ones are suitable for different classes of fires.

| | ssification of Fire | |
|---|--|---------------|
| Indian Standard IN IS 15683 : 2018 | British Standard UK, EU. (BS EN) 2 | US NFP |
| • Class A – Ordinary solid material fires | • Class A – Ordinary solid material fires | • Class A – (|
| Ex :- Wood, Paper etc. | Ex :- Wood, Paper etc. | Ex :- Wood, |
| • Class B – Flammable liquid fires | • Class B – Flammable liquid fires | • Class B – F |
| Ex :- Diesel, Petrol etc. | Ex :- Diesel, Petrol etc. | Ex :- Diesel, |
| • Class C – Flammable Gas fires | • Class C – Flammable Gas fires | • Class C – E |
| Ex :- Hydrogen, Acetylene etc. | Ex :- Hydrogen, Acetylene etc. | Ex :- Energia |
| • Class D – Combustible metal fires | • Class D – Combustible metal fires | • Class D – (|
| Ex :- Sodium, Potasium, Magnesium etc. | Ex :- Sodium, Potasium, Magnesium etc. | Ex :- Sodiun |
| • Class F – Cooking oil fires/Kitchen fires | • Class F – Cooking appliances & fats | • Class K – C |
| Ex:- Vegetable oils and fats. | Ex:- Vegetable oils and fats. | Ex:- Vegetat |
| | Fire on electrical equipment is not specified in the standard since it can be involved in any class of fire. | |

NFPA PA 10 Standard

- Ordinary solid material fires , Paper etc.
- Flammable liquid & Gases
- , Petrol, Hydrogen etc.
- Electrical fires ized electrical equipment etc.
- Combustible metal fires m, Potasium, Magnesium etc.
- Cooking oil/Kitchen fires able oils and fats.



Types of Extinguishers

Water-Based FE (Class A)

- Suitable for fires

 involving solid
 materials like
 wood, paper,
 cloth, and plastics.
- Uses water to cool and extinguish the flames.

Foam FE (Class A and B)

- Effective against
 Class A (solid) and
 Class B
 (flammable liquids and gases) fires.
- Forms a blanket of foam to smother the fire and cool the surface

Carbon Dioxide (CO2) FE (Class B & C)

- Suitable for Class

 B fires (flammable
 liquids and gases)
 and Class C fires
 (electrical
 equipment).
- Displaces oxygen to suppress the fire and leave no

Dry Chemical FE (Class A, B, and C)

- Versatile and
- effective against
- Class A, B, and C
- fires.

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- Uses a dry
- chemical powder
- to interrupt the
- chemical reaction
- of the fire.

Wet Chemical FE (Class K)

- Designed for Class
 K fires, which
 involve cooking
 oils and fats.
- Emulsifies the burning fats and cools the fire.

Clean Agent FE (Class A, B, & C)

- Suitable for Class
 A, B, and C fires.
- Uses non conductive, non toxic gases to
 disrupt the
 combustion
 process.

Dry Powder FE (Class D)

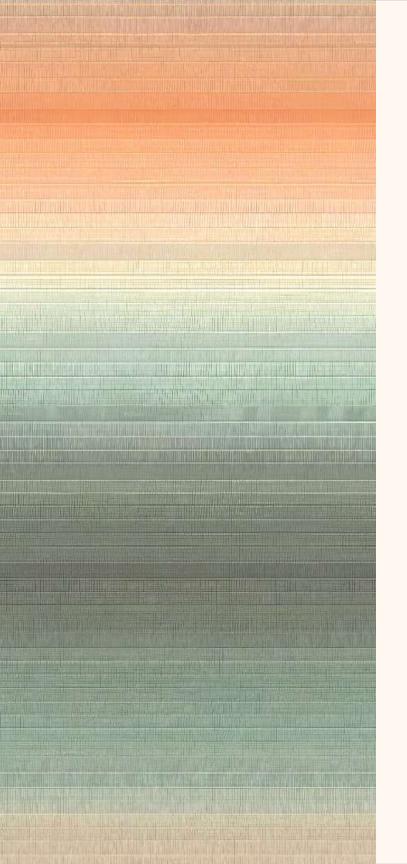
- Specifically
 designed for Class
 D fires, which
 involve
 combustible
 metals.
- Uses a specialized dry powder to smother and extinguish metal fires.

Water Mist FE (Class A and C)

- Effective against
- Class A and C fires.
- Uses ultra-fine
 - water droplets to
 - cool and suppress

Cartridge-Operated Dry Chemical Fire Extinguishers (Class A, B, and C)

- Suitable for Class A, B, and C fires.
- Typically larger and used in industrial settings.



Fire Extinguisher Maintenance



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Regular Inspections

Perform routine visual checks and maintenance to ensure fire extinguishers are in good working condition.

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after use or according to the

Professional Servicing

Engage professional fire extinguisher servicing companies for thorough inspections and maintenance.



Recharge and Replacement

Recharge or replace fire extinguishers manufacturer's recommendations.

Fire Prevention is Key

While fire extinguishers are crucial, focusing on fire prevention measures greatly reduces the risk of fire incidents.