



IS 4308:2019: A Standard for Effective Firefighting

IS 4308:2019 is an Indian Standard that sets the bar for dry chemical powders (DCPs) used in fire extinguishers. These powders are crucial for combating various types of fires, including:

- **Class A Fires:** Involving ordinary combustible materials.
- **Class B Fires:** Involving flammable liquids and gases.
- **Class C Fires:** Involving electrical equipment.
- **Class D Fires:** Involving combustible metals.

When choosing a fire extinguisher, consumers expect the following qualities from DCPs:

- **Rapid Fire Suppression:** Quick knockdown of flames.
- **Re-ignition Resistance:** Prevention of rekindling.
- **Minimal Damage:** Reduced harm to surfaces and equipment.
- **Ease of Use:** Smooth and efficient application.
- **Long Shelf Life:** Consistent performance over time.
- **Environmental Friendliness:** Minimal negative impact.

To meet these expectations, IS 4308:2019 establishes quality parameters for:

- **Composition:** The standard specifies the appropriate chemical composition for different fire classes to ensure optimal performance.
- **Physical Properties:** It sets criteria for particle size, flowability, and moisture content to guarantee the powder's effectiveness.
- **Performance Testing:** DCPs must undergo rigorous testing to verify their extinguishing capabilities, discharge rate, and compatibility with fire extinguisher systems.
- **Environmental Impact:** The standard encourages the use of eco-friendly formulations and minimizes the use of harmful substances.
- **Packaging and Labelling:** Clear and accurate labelling is mandated to provide essential information to users.

By adhering to IS 4308:2019, manufacturers can produce DCPs that are reliable, effective, and safe, providing peace of mind to consumers and ensuring the protection of lives and property.