

Table 4.2: Types and Selection of Fire Extinguishers

ITEMS	REQUIREMENTS
6. DRY CHEMICAL TYPE	<u>1. DRY CHEMICAL</u> <ul style="list-style-type: none"> i. Due to the different designs and the various types of dry chemical agents, choosing the most suitable dry chemical fire extinguisher requires careful evaluation. ii. Hand portable models have a discharge stream that ranges from 10 ft. to 30 ft. (3 m to 9 m), depending on fire extinguisher size. Compared with carbon dioxide or halogenated agent fire extinguishers, they will also perform better under windy conditions. iii. Dry chemical fire extinguishers are available in two basic styles: stored pressure and cartridge-operated. The stored-pressure (rechargeable) type is the most widely used and is best suited where infrequent use is anticipated and where skilled personnel with professional recharge equipment are available. iv. The cartridge-operated type has the advantage of being quickly refilled in remote locations without the need for special equipment. v. Some dry chemical models can be equipped with long-range (high-velocity) nozzles or applicators that are beneficial in applying the agent under certain special fire-fighting conditions. vi. The potassium and urea-potassium base bicarbonate agents are selected in preference to sodium bicarbonate, principally because of their greater fire-extinguishing capabilities. If corrosion is not a factor, potassium chloride can also be included in this group. vii. The ammonium phosphate base agent (multipurpose) is the only dry chemical agent that is suitable for Class A protection. In addition to Class B and Class C protection, the residues of multipurpose dry chemical, when left in contact with metal surfaces, can cause corrosion. viii. Where dry chemical fire extinguishers are utilized for Class C protection, it is important to consider that the residue of potassium chloride is more corrosive than other dry chemicals and that a multipurpose base agent will be more difficult to remove because it first softens when in contact with hot surfaces and then hardens when it cools. ix. Stored-pressure fire extinguishers are available in capacities from 1 lb to 30 lb (0.5 kg to 14 kg) for hand fire extinguishers and 125 kg to 250 lb (57 kg to 113.5 kg) for wheeled fire extinguishers. Cartridge/cylinder-operated fire extinguishers are available in capacities from 4 lb to 30 lb (1.8 kg to 14 kg) for hand fire extinguishers and 45 lb to 350 lb (20 kg to 159 kg) for wheeled fire extinguishers.
	<u>2. APPLICATION</u> <ul style="list-style-type: none"> i. Class A fires., Wood, Paper, Textile, Garbage, Furniture, Residential Plastic, Interior décor. ii. Class B fires., Flammable Liquids. iii. Class C fires., Electric equipment, office equipment, computers, printing machines, copy machines. iv. Class D fires., Metal fires involving magnesium, titanium, zirconium, sodium, lithium, and potassium.
	<u>3. NOT SUITABLE FOR</u> <ul style="list-style-type: none"> i. Class rating should be strictly followed.