

Table 4.2: Types and Selection of Fire Extinguishers

ITEMS	REQUIREMENTS
7. WET CHEMICAL TYPE	<p><u>1. WET CHEMICAL</u></p> <ul style="list-style-type: none"> i. Fire extinguishers of this type are available in hand portable models of 1.5 gal (6 L) and 2½ gal (9.46 L). The extinguishing agent can be comprised of, but is not limited to, solutions of water and potassium acetate, potassium carbonate, potassium citrate, or a combination of the aforementioned chemicals (which are conductors of electricity). The liquid agent typically has a pH of 9.0 or less. ii. On Class A fires, the agent works as a coolant. On Class K fires (cooking-oil fires), the agent forms a foam blanket to prevent reignition. The water content of the agent aids in cooling and reducing the temperature of the hot oils and fats below their autoignition point. The agent, when discharged as a fine spray directly at cooking appliances, reduces the possibility of splashing hot grease and does not present a shock hazard to the operator. iii. In recent years, the development of high-efficiency cooking equipment with high-energy input rates and the widespread use of vegetable oils with high autoignition temperatures has highlighted the need for a new Class K fire extinguisher. The wet chemical extinguisher was the first extinguisher to qualify to the new Class K requirements. iv. In addition to offering rapid fire extinguishment, a thick foam blanket is formed to prevent reignition while cooling both the appliance and the hot cooking oil. Wet chemical extinguishers also offer improved visibility during fire fighting as well as minimizing clean-up afterwards. <p><u>2. APPLICATION</u></p> <ul style="list-style-type: none"> i. Class A fires., Wood, Paper, Textile, Garbage, Furniture, Residential Plastic, Interior décor. ii. Class K fires., Kitchen fires, deep seated cooking, fryer oil fires. <p><u>3. NOT SUITABLE FOR</u></p> <ul style="list-style-type: none"> i. Class rating should be strictly followed. 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.



WET CHEMICAL EXTINGUISHER FOR ILLUSTRATION