

Table 4.2: Types and Selection of Fire Extinguishers

ITEMS	REQUIREMENTS
2. FOAM TYPE	<p><u>1. DESCRIPTION</u></p> <ul style="list-style-type: none"> i. AFFF (aqueous film-forming foam) and FFFP (film-forming fluoroprotein)-type fire extinguishers are rated for use on both Class A and Class B fires. They are not suitable for use in freezing temperatures. An advantage of this type of extinguisher when used on Class B flammable liquid fires of appreciable depth is the ability of the agent to float on and secure the liquid surface, which helps to prevent reignition. ii. Fire extinguishers of these types are usually available in hand portable models of 1.6 gal (6 L) and 2½ gal (9.46 L) and in wheeled models having a liquid capacity of 33 gal (125 L). These fire extinguishers have ratings of 2-A:10-B, 3-A:20-B, and 20-A:160-B, respectively. iii. The extinguishing agent is a solution of film-forming surfactant in water that forms mechanical foam when discharged through an aspirating nozzle. On Class A fires, the agent acts as both a coolant and penetrant to reduce temperatures to below the ignition level. On Class B fires, the agent acts as a barrier to exclude air or oxygen from the fuel surface. iv. On flammable liquid fires of appreciable depth, best results are obtained when the discharge from the fire extinguisher is played against the inside of the back wall of the vat or tank just above the burning surface to permit the natural spread of the agent back over the burning liquid. If this cannot be done, the operator should stand far enough away from the fire to allow the agent to fall lightly upon the burning surface — the stream should not be directed into the burning liquid. Where possible, the operator should walk around the fire while directing the stream to get maximum coverage during the discharge period. v. For fires in ordinary combustible materials, the agent can be used to coat the burning surface directly. For flammable-liquid spill fires, the agent could be flowed over a burning surface by bouncing it off the floor just in front of the burning area. vi. Film-forming foam agents are not effective on flammable liquids and gases escaping under pressure or cooking-grease fires. <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 B fires., Flammable Liquids. <p><u>3. NOT SUITABLE FOR</u></p> <ul style="list-style-type: none"> i. Class C fires., Electrical equipment, Office equipment, Computers. ii. Below 4°C ambient temperatures



FOAM TYPE EXTINGUISHER FOR ILLUSTRATION