

Fire Extinguishment and Control

TABLE 36-A

STANDARD TEMPERATURE RATINGS FOR AUTOMATIC SPRINKLERS

Rating	Operating temperature (F)	Color	Maximum ceiling temperature (F)
Ordinary	135-170	Uncolored*	100
Intermediate	175-225	White*	150
High	250-300	Blue	225
Extra high	325-375	Red	300
Very extra high	400-475	Green	375
Ultra high	500-575	Orange	475

From *Sprinkler Systems, NFPA Standard No. 13, Table 3651*

*The 135 F sprinklers of some manufacturers are half black and half uncolored. The 175 F sprinklers of the same manufacturers are yellow.

is used where construction is inadequately protected by design or by distance from adjacent fire hazards.

In special applications, open sprinklers and closed sprinklers may be combined in a single system where deluge protection is not needed over the entire area. However, it must be remembered that separate automatic detectors are also required in the area covered by the closed sprinklers, that operation of a closed sprinkler will not activate the

entire system, and that a fire in the area of the closed sprinkler will also cause water to discharge from all of the open sprinklers.

Automatic alarms, operated by the flow of water through the system, should be a part of every standard sprinkler installation. Such an alarm may be connected to a central-station fire alarm service or to the municipal fire department, or may be a local alarm signal. Its purpose is to give prompt notice that the

TABLE 36-B

RECOMMENDED RATINGS FOR SPRINKLERS

	Maximum temperature (F) at sprinkler level under other than fire conditions					
	100	150	225	300	365	465
Low rate of heat release from fire (Light occupancies such as offices, schools, hotels, hospitals, apartments)	135-170	175-225	250-300	325-375	400-475	500-575
Moderate rate of heat release from fire (Ordinary industrial occupancies)	175-225	175-225	250-300	325-375	400-475	500-575
High rate of heat release from fire (Flammable liquids, rubber tires, rubber and plastic foams, high-piled combustible storage and similar locations)	250-300	250-300	250-300	325-375	400-475	500-575

Courtesy Factory Mutual Engineering Corporation