

Table 9.7: Automatic Sprinkler System Requirements

| ITEMS | REQUIREMENTS |
|--|---|
| 14. SPRINKLER OPERATING TEMPERATURE | <ul style="list-style-type: none"> i. The operating temperature of the proposed sprinklers shall be based on the maximum room temperature expected at the ceiling level at any time. Automatic sprinklers shall have their frame arms, deflector, coating material, or liquid bulb colored in accordance with the requirements of Table 9.7.C. ii. The maximum temperature of water in the sprinkler piping shall not exceed 37.8°C. iii. The minimum temperature of water in the sprinkler piping shall not drop below 4°C. iv. For the air-conditioned areas, the operating temperature of the sprinkler shall be 68°C. v. For the non air-conditioned areas, the operating temperature of the sprinkler shall be 79°C. |

Table 9.7.C: Sprinkler Operating Temperature and Color Classification

| MAXIMUM CEILING TEMPERATURE | TEMPERATURE RATING OF SPRINKLER HEAD | TEMPERATURE CLASSIFICATION | COLOUR CODE | GLASS BULB COLOURS |
|-----------------------------|--------------------------------------|----------------------------|--------------------|--------------------|
| 1. 38°C | 57°C—77°C | Ordinary | Uncolored or Black | Orange or Red |
| 2. 66°C | 79°C—107°C | Intermediate | White | Yellow or Green |
| 3. 107°C | 121°C—149°C | High | Blue | Blue |
| 4. 149°C | 163°C—191°C | Extra High | Red | Purple |
| 5. 191°C | 204°C—246°C | Very Extra High | Green | Black |
| 6. 246°C | 260°C—302°C | Ultra High | Orange | Black |
| 7. 329°C | 343°C | Ultra High | Orange | Black |



Figure 9.11.: Sprinkler Bulb Color codes and Marking for illustration