

Subject: How many Fire Extinguishers do I need for my premises?

To ensure Fire Safety Compliance, the first step is to get a Fire Safety Risk Assessment carried out by a competent person. The number of Fire Extinguishers you require depends on many factors which can be identified in your Fire Safety Risk Assessment.

Fire Extinguishers are rated by an indicator of their effectiveness of extinguishing certain classes of fire. In the case of class A (which is paper, cardboard and carbonaceous material), a wooden crib of specific size and length is ignited, and the amount of burning crib that can be extinguished is measured. The 'basic' extinguisher for general use is the red 9-litre water, which can extinguish 1.3m of the standard wooden crib fire and is therefore rated 13A.



How to calculate how many Fire Extinguishers you need

To satisfy BS5306 Part 8 2012, 'A' rated appliances should be included based on the following design process.

Stage 1

Include appliances at all statutory positions including:

- Storey exits
- Landings on upper floor levels
- Additional positions should it otherwise be necessary to travel more than 30 metres to reach the nearest appliance

Any storey with a floor area less than or equal to 400m² should have at least two Extinguishers with a class A rating, having a combined minimum total fire rating of 26A.

Following this exercise, a calculation should be carried out to determine the aggregate 'A' rating requirement based on the total floor area of the building. The calculation is set out below:

$$\text{Total Floor area (m}^2\text{)} \times 0.065 = \text{Aggregate A rating}$$

In the event that the result of this calculation exceeds the aggregate rating based on Stage 1 then proceed to Stage 2.

Stage 2

Include sufficient supplementary 'A' rated appliances to achieve the correct aggregate A rating. This may include doubling up appliances in strategic positions or adding new positions. Alternatively, if appropriate, the size of appliance could be increased e.g. changing from a 6 litre Foam Spray extinguisher to a 9 litre capacity will increase the per appliance 'A' rating and may obviate the need to increase the quantity of appliances.

Stage 3

Add appropriate Fire Extinguishers to cover perceived 'Higher Risk' areas such as kitchens and plant rooms.

To determine how many Fire Extinguishers you need, you must carry out a Fire Safety Risk Assessment. Finding out what all your potential risks are will give you a starting point for a fire safety plan. The types, sizes and how many of extinguishers you require will differ between business types.

Got a question about Fire Extinguishers? Need Fire Safety Compliance advice? Get in touch today!

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