
British Standard

Fire safety signs, notices and graphic symbols

Part 1. Specification for fire safety signs

Signaux, affiches et symboles graphiques de sécurité contre l'incendie
Partie 1. Spécification des signaux, sécurité contre l'incendie

Brandschutzzeichen und-Anzeigen und graphische Brandschutzzeichen
Teil 1. Spezifikation für Brandschutzzeichen

Foreword

This Part of BS 5499 has been prepared under the direction of the Fire Standards Policy Committee. It supersedes BS 5499 : Part 1 : 1984, which is withdrawn.

This Part of BS 5499 is similar to the international standard ISO 6309, 'Fire protection — Safety signs', but is not identical. Unlike the international standard some worded signs are included, both where no acceptable graphic symbol has yet evolved, and as supplementary signs to graphic symbols.

The first purpose of the revision is to extend the basic framework for safety signs, as specified in BS 5378, to cover fire safety signs. In order to avoid confusion and the possibility of conflict with BS 5378 (or any revision or amendment of it) the specification for the design and layout of geometric shapes, safety colours and symbols for fire safety signs is given as a reference to BS 5378. Only the specification of fire equipment signs is covered directly in this standard.

The second purpose is to increase the use of graphic symbols for fire safety signs, and to reduce the number of worded signs, adopting internationally agreed symbols where appropriate. In particular, the specification introduces a graphic symbol to replace the worded exit sign. However, it is recognized that there will be a transitional period until the public can be expected to understand the meaning of this new graphic symbol. During that period the word 'exit' (or alternatives given in B.5) will need to be used alongside the new symbol. Examples are given showing both transitional and purely graphic exit signs. These signs can be accommodated by replacing the existing fret in internally-illuminated exit signs which have been constructed in accordance with BS 2560 (which is withdrawn). BS 2560 is replaced by both BS 5499 : Part 3 (which includes the construction and performance requirements) and this Part of BS 5499 (which includes the graphic requirements for internally-illuminated fire safety signs).

The particular differences between the British Standard and the international standard are as follows: the ISO symbol for 'do not obstruct' is not considered to be readily recognizable and is therefore excluded. The same applies to the ISO symbol for a 'collection of fire-fighting equipment'. However this has been replaced by a (British) fireman's helmet as a general sign for fire equipment. The ISO symbol for a fire ladder provided as fire equipment is not considered necessary in this country. All the fire equipment signs, except for the directional arrows, have been designed with a common graphics theme, including flames with the indicative symbol or text.

The EEC issued a Directive (77/576/EEC) 'Council Directive of 25 July 1977 on the Approximation of the Laws, Regulations and Administrative Provisions of the Member States relating to the provision of safety signs at places of work'. Effect is given to this Directive in Great Britain by the Safety Signs Regulations 1980 (SI 1980 No. 1471), and BS 5378 : Part 1 : 1980 is called up in these Regulations. The sole difference between the EEC

Directive and its implementation in the UK is that whereas the EEC Directive gives a symbol for 'emergency exit' SI 1980 No. 1471 excludes emergency exit (paragraph 4c).

Since the EEC Directive was issued, there has been much activity concerning the sign for 'emergency exit'. This activity includes testing of the public comprehensibility of a large number of emergency exit signs in many countries, and also the reactions of people to these signs in conditions which reproduce some of the conditions in which these signs are to be understood (these conditions including, for example, people in smoke-filled rooms whose spectacles have been removed). The consequence of this has been substantial international agreement on one sign for 'emergency exit'. This sign has been published in ISO 6309.

This specification for image and graphics is now applicable to internally illuminated signs and self-luminous signs, which were excluded from previous editions. Constructional requirements for self-luminous fire safety signs are given in BS 5499 : Part 2 and constructional requirements for internally illuminated fire safety signs are given in BS 5499 : Part 3.

This Part of BS 5499 does not stipulate when fire safety signs are required. However, it has been assumed in the drafting of the standard that the execution of its provisions is entrusted to appropriately qualified and experienced people, for whose guidance it has been prepared. Experience in the application of fire safety signs selected from the previous edition of this standard suggests that when determining the size of a sign, a balance needs to be achieved between legibility and suitability. For example signs need to be large enough to be readily seen in large scale industrial and commercial buildings, but small enough not to impose an institutional scale in residential buildings such as old people's homes and hotels, particularly in small spaces. Careful consideration should be given to the use of fire safety signs in buildings of historic or architectural interest.

One of the consequences of the legislation intended to reduce the risk to persons from fire has been an increased demand for fire safety signs. It is clearly desirable for everyone to become familiar with the appearance of such signs and to be able to understand them at a glance.

The specified fire safety signs given in appendix B, include signs from BS 5378 : Parts 1 and 3, and ISO 6309. Graphic symbols may be accompanied by wording on a supplementary sign, since such wording is supplementary to the symbol, and such wording is on occasion required by legislation.

Those signs included in appendix B, which are shown as being extracted from BS 5378 : Part 1, are required under Health and Safety legislation to conform with The Safety Signs Regulations 1980, SI 1980 No. 1471.

Compliance with a British Standard does not of itself confer immunity from legal obligations.



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Specification

1 Scope

This Part of BS 5499 specifies the characteristics of fire safety signs that are displayed to give information concerning fire precautions, fire equipment and means of escape in case of fire.

NOTE. The titles of the publications referred to in this standard are listed on the inside back cover.

2 Definitions

For the purposes of this Part of BS 5499, the definitions given in BS 5378 : Part 1 apply, together with the following.

2.1 fire equipment sign. Safety sign that indicates the location of firefighting equipment and/or how it should be used.

2.2 self-luminous sign. A type of sign which is self-energized in respect of luminosity and requires no external source of power (see BS 5499 : Part 2).

2.3 exit sign. Sign that indicates an escape route or a final exit.

2.4 escape route. Route forming part of the means of escape from any point in a building to a final exit.

2.5 letter height. The nominal height of the lower case letter 'x' except where the wording is all in capitals, when it is the height of the capital letters.

3 General

3.1 Classification

The six classes of fire safety sign are as follows:

- (a) prohibition signs;
- (b) warning signs;
- (c) mandatory signs;
- (d) safe condition signs;
- (e) fire equipment signs;
- (f) supplementary signs.

3.2 Geometric shapes

The shapes of prohibition, warning, mandatory, safe condition and supplementary signs shall be in accordance with BS 5378 : Part 1 (see appendix A).

The shape of a fire equipment sign shall be either square or oblong.

NOTE. Corners of geometric shapes may be radiused.

3.3 Colours

The colours of prohibition, warning, mandatory, safe condition and supplementary signs shall be in accordance with BS 5378 : Parts 1 and 2, except that the supplementary signs B.5.3, B.5.4 and B.5.5 shall always be white lettering on a green background.

For fire equipment signs, the background colour shall be red, the specification of the red being in accordance with BS 5378 : Part 2. The symbol or text on such signs shall be white. Self-luminous safe condition signs and self-luminous fire equipment signs, for which in dark conditions only the symbols or lettering are visible, may have symbols or lettering that appear as pale green instead of white.

3.4 Layout

The layout of fire safety signs shall be in accordance with BS 5378 : Part 1 (see appendix A). For safe condition and fire equipment signs, where two or more signs are combined together, the relevant safety colours shall abut.

4 Characteristics of signs

4.1 General

The fire safety signs shall be in accordance with the descriptions given in appendix B.

4.2 Symbols on signs

The design of symbols shall be in accordance with BS 5378 : Part 1.

NOTE 1. Only the written description of the symbol in appendix B (the image content) is standardized, not the illustrations thereof.

NOTE 2. Although the illustrations given in appendix B are not standardized, their use is to be encouraged (see 3.2 of BS 5378 : Part 3 : 1982).

4.3 Wording on signs

The wording shall be in accordance with appendix B, except in the case of supplementary signs (see 4.6). The lettering shall be readable (see 4.4.1) and shall be in accordance with BS 5378 : Part 3.

NOTE. The size of lettering on the supplementary sign should not be such that it dominates the symbol.

4.4 Size of signs

4.4.1 Worded signs. The ratio of the minimum 'x' height of the text and the minimum recommended size of the geometric shape of the sign shall be in accordance with the values given in appendix B.

The letter height of signs, other than supplementary signs, shall be in accordance with table 1.

Table 1. Minimum letter height for signs (other than supplementary signs) at various viewing distances

Viewing distance	Minimum upper and lower case 'x' height
m	mm
Up to 2.5	5
Over 2.5 to 5	10
Over 5 to 7.5	15
Over 7.5 to 10	20

4.4.2 Signs including symbols. The sizes of signs including symbols, and their relationship to the sizes of the signboard, shall be as given in table 2. Where it is intended to combine signs including symbols with other signs or supplementary signs, the adjoining edges shall be the same size.

Table 2. Sizes of signs and relationship to size of signboard

Diameter or height of fire safety sign	Height of signboard
mm	mm
60	75
80	100
120	150
180	225
240	300
480	600
NOTE. The heights of separate supplementary signs are excluded.	

4.5 Directional arrows

Directional arrows on fire safety signs shall only be used in association with that sign and shall have the same background colour. Arrows shall not be used alone on signs. The arrow may be used either on the same signboard as the sign or on a separate signboard of the same size where it shall be placed so as to be clearly associated with the sign.

NOTE. The use of arrows with symbols is illustrated in appendix C.

4.6 Supplementary signs

Supplementary signs, with text only, may be used in conjunction with any of the signs specified in appendix B where additional information is required, but they shall not be used alone.

NOTE 1. Where the required meaning cannot be conveyed by a sign from appendix B, additional signs may be designed in accordance with clause 3. Alternatively a general sign (e.g. B.1.1) may be used in conjunction with additional wording on a supplementary sign.

NOTE 2. Any of the safety signs, with or without directional arrows or supplementary signs, may where required be placed on a single signboard. Examples of the use of signboards are given in appendix D.

Appendices

Appendix A. Layout of fire safety signs

The following is a summary of the specification given in BS 5378 : Part 1, together with the specification for fire equipment signs given in this Part of BS 5499.

NOTE. Corners of geometric shapes may be radiused.

(a) *Prohibition signs*

Geometric shape: a red circular band and a cross bar, the cross bar at 45° descending diagonally from left to right, thickness of band and cross bar 0.1 of the diameter of the sign
Background: colour white
Symbol: colour black, placed centrally on the background so that it does not obliterate the cross bar
Text: any text is placed on a supplementary sign

(b) *Warning signs*

Geometric shape: a black equilateral triangle band, thickness of band 0.06 of the length of the triangle
Background: colour yellow, covering at least 50 % of the area of the safety sign
Symbol or text: colour black, placed centrally on the background

(c) *Mandatory signs*

Geometric shape: a circle
Background: colour blue, covering at least 50 % of the area of the safety sign
Symbol or text: colour white, placed centrally on the background

(d) *Safe condition signs*

Geometric shape: a square or oblong
Background: colour green, covering at least 50 % of the area of the safety sign
Symbol or text: colour white

(e) *Fire equipment signs*

Geometric shape: square or oblong
Background: colour red, covering at least 50 % of the area of the safety sign
Symbol or text: colour white

(f) *Supplementary signs*

Geometric shape: square or oblong
Background: colour white, with text in black, or the safety colour used on the safety sign it is supplementing, with the text in the relevant contrasting colour

Appendix B. Specified fire safety signs

NOTE 1. The abbreviations used are as follows:

- R: referent; the subject represented by the symbol
- I: image content; the elements of the symbol and their relevant disposition
- W: wording; the wording to be used
- F: function; the purpose of the symbol
- A: field of application; the context in which the use of a symbol to convey a message is appropriate
- S: text of supplementary sign, if required

NOTE 2. Where the image content is derived from another British Standard or from an international standard, its source(s) are indicated with the image content (I) in square brackets, as follows:

- [1] BS 5378 : Part 1 : 1980;
- [2] BS 5378 : Part 3 : 1982;
- [3] ISO 6309 : 1987.

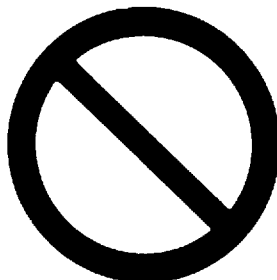
NOTE 3. The ratios given against some of the signs are in millimetres. The first value is the 'x' height of the text and the second value is the recommended size of the geometric shape of the sign.

Sign

Meaning

B.1 Prohibition signs

B.1.1



- R General prohibition
- I Geometric shape without a symbol [2]
- F To draw attention to a prohibited activity
- A For use with a supplementary sign, to identify a prohibition where no specific symbol is appropriate

B.1.2



- R Smoking is prohibited
- I Cigarette with smoke in side view [1, 3]
- F To indicate that smoking is not allowed in a specified area
- S No smoking

B.1.3



- R Smoking and naked flames prohibited
- I Match in side view with flame [1, 3]
- F To indicate that neither smoking nor naked flames are allowed in a specified area
- A For use in cases where smoking or naked flame could cause danger of fire or explosion
- S Smoking and naked flames prohibited

Sign

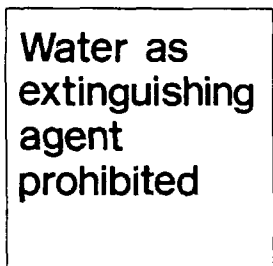
Meaning

B.1.4



- R Water as extinguishing agent prohibited
- I Bucket pouring water on to a flame [1, 3]
- F To indicate that the use of water on a fire is inappropriate
- A For use on, or adjacent to, materials or equipment which should not be extinguished with water
- S 'Water as extinguishing agent prohibited' (see B.1.5) shall be used with this sign

B.1.5



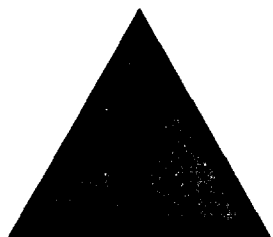
Supplementary sign only to be used in combination with B.1.4

- R Water as extinguishing agent prohibited
- W 'Water as extinguishing agent prohibited'
- F To indicate the use of water on a fire is inappropriate

NOTE. See appendix D.

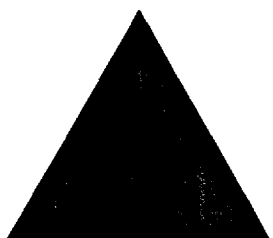
B.2 Warning signs

B.2.1



- R General warning, 'Caution, risk of danger'
- I Exclamation mark [1]
- F To draw attention to the risk of danger
- A For use with a supplementary sign to identify a hazard, and for use where no specific symbol is appropriate

B.2.2



- R Flammable materials
- I Flame with line under [1, 3]
- F To warn of the presence of highly flammable material
- A For use adjacent to such materials, or on doors to rooms in which they are kept
- S 'Caution, risk of fire, highly flammable materials'



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Sign

Meaning

B.2.3



- R Oxidizing materials
 I A flame on a circle with line under [3]
 F To warn of the presence of oxidizing materials
 A For use adjacent to such materials, or on doors to rooms in which they are kept
 S 'Caution, risk of fire, oxidizing materials'

B.2.4



- R Risk of explosion
 I Exploding substance [1, 3]
 F To warn of the possible presence of an explosive atmosphere, flammable gas or explosives
 A For use adjacent to such materials, or on doors to rooms in which they are kept
 S 'Caution, risk of fire, explosive material'

B.2.5



- R No means of escape
 W 'No escape'
 F To warn that an apparent exit has no outlet for escape

5:60

B.2.6

In event
of fire
avoid use
of lift

Supplementary sign only to be used in combination with general warning sign B.2.1

- R In event of fire, avoid use of lift
 W 'In event of fire avoid use of lift'
 F To warn that a lift should not be used in the event of a fire

NOTE. See appendix D.

In event
of fire
avoid use
of lift