

Specification for Identification of pipelines and services

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Foreword

This British Standard has been prepared under the direction of the Mechanical Engineering Standards Committee. This revision of BS 1710 : 1975 is published to give further clarification and supersedes the 1975 edition which is withdrawn.

This standard remains in alignment with ISO/R 508 'Identification colours for pipes conveying fluids in liquid or gaseous conditions in land installations and on board ships' which is published by the International Organization for Standardization (ISO). Table 1 gives the basic identification colours but supplements ISO/R 508 by providing a basic colour for 'other liquids' and a further colour for ventilation ducts and conduits for electrical services. The previous marking to denote a hazard (yellow with black diagonal stripes) has been omitted from this revision because of the use of this symbol in BS 5378 to indicate a physical hazard.

Examples of identification by basic colour and code indications are illustrated in appendices A and B. Colour

code indications for medical gas services are given in appendix C and these comply with the requirements of BS 1319 which is in course of revision. Pipelines carrying industrial gases from cylinders should have a basic identification colour in accordance with table 1. Optional colour code indications for general building services are given in appendix D.

The identification of pipelines in land transport should comply with this standard. An identification scheme for pipelines in aircraft and spacecraft is given in British Standard M 23.

The names of colours have been retained in this standard but these are given for guidance and when ordering only the reference number should be specified.

This standard is supplementary to any regulations laid down for public safety.

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

British Standard Specification for Identification of pipelines and services

1. Scope

This British Standard specifies the colours for the identification of pipes conveying fluids in above ground installations and on board ships on a generic basis. It also includes ducts for ventilation and conduits used for carrying electrical services.

The following three methods of identification are included:

- (a) basic identification colours only;
- (b) basic identification colours and code indications;
- (c) basic identification colours used in conjunction with the user's particular colour coding scheme.

These methods are augmented by the requirements of 5.2.

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 British Standard the following definitions apply.

2.1 pipe and pipelines. Pipes, electrical conduits and ducts, and their coverings.

2.2 fluids. Substances consisting of particles that move freely among themselves and are capable of being conveyed through pipes.

2.3 labels. Labelling including labels, plates, clips or signs.

3. General

3.1 All methods of identification shall be compatible with the pipe and operating conditions.

3.2 Where banding (see 6.1) is adopted, the decorative or protective colour of the pipe shall not be any of the basic identification colours.

3.3 The basic identification shall be included at junctions, at both sides of each valve, service appliance, bulkhead

and wall penetration and at any other place where identification is necessary.

3.4 If the pipeline has been coded with safety colours for fire fighting, the valves shall be painted red (see 5.1(a) and table 2), e.g. valves in fire extinguishing steam or water pipelines, or in water flooding pipelines shall be painted red.

NOTE. In other cases valves may be painted with the appropriate identification colours.

4. Basic identification colours

The appropriate basic colour shall be in accordance with table 1.

5. Code indications

5.1 Safety colours (see table 2). Safety colours shall be as follows:

- (a) red, for fire fighting;
- (b) yellow for warning*;
- (c) auxiliary blue in conjunction with the green basic colour, to denote pipes carrying fresh water, either potable or non-potable.

5.2 Information. Information shall be given regarding the nature of the contents of the pipe by using the following systems either individually or in combination:

- (a) name in full;
- (b) abbreviation of name;
- (c) chemical symbol;
- (d) refrigerant number as specified in BS 4580;
- (e) appropriate code indication colour bands (see notes 1 and 2).

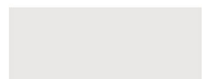
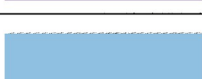
NOTE 1. Colour code indications for medical gas services are given in appendix C.

NOTE 2. Optional colour code indications for general building services are given in appendix D.

NOTE 3. Optional colour code indications for refrigeration services are given in appendix E. The nature of the contents of refrigeration service pipes should also be indicated by the chemical symbol and the refrigerant number where appropriate as specified in BS 4580.

*When it is required to supplement the warning colour with warning sign to comply with the Statutory Instrument 1986 No. 1474 reference should be made to BS 5378 : Part 1.

Table 1. Basic identification colours

Pipe contents	Basic identification colour names	BS identification colour reference BS 4800	Example
Water	Green	12 D 45	
Steam	Silver-grey	10 A 03	
Oils – mineral, vegetable or animal Combustible liquids	Brown	06 C 39	
Gases in either gaseous or liquefied condition (except air)	Yellow ochre	08 C 35	
Acids and alkalis	Violet	22 C 37	
Air	Light blue	20 E 51	
Other liquids	Black	00 E 53	
Electrical services and ventilation ducts	Orange	06 E 51	

NOTE 1. Some colours are marginally outside the limits specified in ISO/R 508 but for practical purposes they may be used.

NOTE 2. The colour names given in column 2 are only included for guidance since different colour names may be used by different manufacturers for the same colour reference.

Table 2. Safety colours

Safety colour	BS colour reference BS 4800	Example
Red	04 E 53	
Yellow	08 E 51	
Auxiliary blue	18 E 53	

NOTE. The colour names given in column 1 are only included for guidance since different colour names may be used by different manufacturers for the same colour reference.