INTERNATIONAL STANDARD



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Ships and marine technology — Identification colours for the content of piping systems —

Part 2:

Additional colours for different media iTeh Sand/or function SEVIEW

Navires et technologie maritime — Couleurs pour l'identification du contenu des systèmes de tuyauterie —

Partie 2. Couleurs supplémentaires pour autres milieux et/ou fonctions https://standards.iteh.av/catalog/standards/sist/31df0be4-4d2c-4e4d-bd82b4164319dc08/iso-14726-2-2002



Reference number ISO 14726-2:2002(E)

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this part of ISO 14726 may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 14726-2 was prepared by Technical Committee ISO/TC 8, *Ships and marine technology*, Subcommittee SC 3, *Piping and machinery*.

It cancels and replaces ISO 5571:1981, of which it constitutes a technical revision.

ISO 14726 consists of the following parts, under the general title *Ships and marine technology* — *Identification colours for the content of piping systems*: ISO 14726-2:2002

- Part 1: Main colours and media b4164319dc08/iso-14726-2-2002

— Part 2: Additional colours for different media and/or functions

Annexes A and B of this part of ISO 14726 are for information only.

ISO 14726-2:2002(E)

Introduction

It is planned to merge ISO 14726-1 and ISO 14726-2 during the next review.

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<u>ISO 14726-2:2002</u> https://standards.iteh.ai/catalog/standards/sist/31df0be4-4d2c-4e4d-bd82b4164319dc08/iso-14726-2-2002

Ships and marine technology — Identification colours for the content of piping systems —

Part 2: Additional colours for different media and/or functions

1 Scope

2

This part of ISO 14726 specifies additional colours to be used with the main colours given in ISO 14726-1 for the marking of piping systems in accordance with the content and/or function on board ships and marine structures.

Additional colours may not be used if no differentiation of a single main colour on board is needed.

This part of ISO 14726 does not apply to piping systems for medical gases, industrial gases and cargos.

It gives no definitions for the listed media and/or functions D PREVIEW

These additional colours may also be used, together with the main colours, for piping systems on drawings and diagrams.

<u>ISO 14726-2:2002</u>

https://standards.iteh.ai/catalog/standards/sist/31df0be4-4d2c-4e4d-bd82-Normative references b4164319dc08/iso-14726-2-2002

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of ISO 14726. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of ISO 14726 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 14726-1:1999, Ships and marine technology — Identification colours for the content of piping systems — Part 1: Main colours and media

IEC 60757:1983, Code for designation of colours

CIE Publication 15.2:1986, Colorimetry (second edition)

3 Additional colours for media and/or functions

Table 1 lists the names and letter codes for additional colours.

Table 2 lists media or media by function. Every main colour has the possibility of being used with 11 additional colours. The empty boxes in Table 2 are reserved for further standardization.

Informative annex A lists explanations for some media/functions.

Informative annex B gives standard colours and their equivalent colour codes in other colour systems.

Name of colour	Letter code ^a	
Black	ВК	
Blue	BU	
Brown	BN	
Green	GN	
Grey	GY	
Maroon	MN	
Orange	OG	
Silver	SR	
Red	RD	
Violet	VT	
White	WH	
Yellow	YEO	
^a As given in IEC 60757.		

Table 1 — Name of colour and letter code

Table 2 — Additional colours for different media and/or functions

Waste media	BK e (main colour)	DAR	Fresh water	BU (main colour)
Black water	BK – BU – BK		itah ai)	BU – BK – BU
Waste oil/Used oil	BK – BN – BK	arus	Fresh water, sanitary	BU – BN – BU
Bilge water	BK – GN – BK	14726-	Potable water	BU – GN – BU
Exhaust gas	tandards.ten.avcatalog/s	tandard	Distillate s/six/3100be4-4d2c-4e4d-bd82-	BU – GY – BU
*	BK – MN1-6BK19d	08/iso-	14726-2-2002	BU – MN - BU
	BK – OG – BK		Gas-turbine wash water	BU – OG – BU
	BK – SR – BK		Feed water	BU – SR – BU
	BK – RD – BK			BU – RD – BU
	BK – VT – BK		Cooling fresh water	BU – VT – BU
Grey water	BK – WH – BK		Chilled water	BU – WH – BU
Sewage, contaminated	BK – YEO – BK		Condensate	BU – YEO – BU

Sea water	GN (main colour)
	GN – BK – GN
Decontamination water	GN – BU – GN
Sea water, sanitary	GN – BN – GN
	GN – GY – GN
	GN – MN – GN
	GN – OG – GN
	GN – SR – GN
	GN – RD – GN
Ballast water	GN – VT – GN
	GN – WH – GN
Cooling sea water	GN – YEO – GN

Fuel	BN (main colour)
Heavy fuel (HFO)	BN – BK – BN
Aviation fuel	BN – BU – BN
	BN – GN – BN
	BN – GY – BN
	BN – MN - BN
	BN – OG – BN
	BN – SR – BN
	BN – RD – BN
Biological fuel	BN – VT – BN
Gas-turbine fuel	BN – WH – BN
Diesel fuel (MDO)	BN – YEO – BN

Non-flammable gases	GY (main colour)	
	GY – BK – GY	
Oxygen	GY – BU – GY	
Inert gas	GY – BN – GY	
Nitrogen	GY – GN – GY	
Refrigerant	GY – MN – GY	
Compressed air LP (Low Pressure)	GY – OG – GY	
	GY – SR – GY	
Compressed air HP (High Pressure)	GY – RD – GY	
Control air/regulating air	GY – VT – GY	
Breathing air ^a	GY – WH – GY	
Breathing gas ^a	GY – YEO – GN	
^a This marking is used in submarines for distribution systems		

Table 2 — Additional colours for different media and/or functions (continued)

^a This marking is used in submarines for distribution systems used for breathing air from cylinders.

Acids, alkalis	VT (main colour)
	VT – BK – VT
	VT – BU – VT
	VT – BN – VT
	VT – GN – VT
	VT – GY – VT
	VT – MN – VT
	VT – OG – VT
	VT – SR – VT
	VT – RD – VT
	VT – WH – VT
	VT – YEO – VT

Masses (dry and wet)	MN (main colour)		Steam	SR (main colour)
iTe	1 MN - BK - MN	ARI	Steam for heating purposes	SR – BK – SR
	MN – BU – MN	ds i	teh.ai)	SR – BU – SR
	MN – BN – MN			SR – BN – SR
	MN – GN – <u>IMN</u> 14	726-2:2	002	SR – GN – SR
https://stanc	- 0		st/31df0be4-4d2c-4e4d-bd82-	SR – GY – SR
	MN - 0643 MN 08	/iso-14	126-2-2002	SR – MN – SR
	MN – SR – MN			SR – OG – SR
	MN – RD – MN			SR – RD – SR
	MN – VT – MN			SR – VT – SR
	MN – WH – MN		Exhaust steam	SR – WH – SR
	MN – YEO – MN		Supply steam	SR – YEO – SR

Oil other than fuel	OG (main colour)
	OG – BK – OG
Thermal fluid	OG – BU – OG
	OG – BN – OG
Lubrication oil for gas turbines	OG – GN – OG
Hydraulic fluid	OG – GY – OG
	OG – MN – OG
Lubricating oil for steam turbines	OG – SR – OG
	OG – RD – OG
Lubrication oil for gears	OG – VT – OG
	OG – WH – OG
Lubricating oil for internal-combustion engines	OG – YEO – OG

Air in ventilation systems	WH (main colour)
Discharge air	WH – BK – WH
Mechanical supply air, cold	WH – BU – WH
Natural exhaust air	WH – BN – WH
Atmospheric air	WH – GN – WH
Mechanical exhaust air	WH – GY – WH
Decontaminated supply air	WH – MN – WH
Mechanical recirculated air	WH – OG – WH
Mechanical supply air, warm	WH – SR – WH
Smoke clearance	WH – RD – WH
Conditioned supply air	WH – VT – WH
Natural supply air	WH – YEO – WH

Fire fighting/fire protection	RD (main colour)
	RD – BK – RD
	RD – BU – RD
	RD – BN – RD
Fire-fighting water	RD – GN – RD
Fire-fighting gas	RD – GY – RD
	RD – MN – RD
Sprinkler water	RD – OG – RD
	RD – SR – RD
Spray water	RD – VT – RD
Fire-fighting powder	RD – WH – RD
Fire-fighting foam	RD – YEO – RD

Flammable gases	YEO (main colour)
	YEO – BK – YEO
Hydrogen	YEO – BU – YEO
	YEO – BN – YEO
	YEO – GN – YEO
Acetylene	YEO – GY – YEO
	YEO – MN – YEO
	YEO – OG – YEO
	YEO – SR – YEO
	YEO – RD – YEO
Liquid gas	YEO – VT – YEO
	YEO – WH –YEO

Table 2 — Additional colours for different media and/or functions (continued)

4 Design

The marking shall be applied in accordance with ISO 14726-1:1999, clauses 5 and 6. The marking shall be readily visible. It shall be arranged in such a way that the additional colour is surrounded by the main colour.

<u>ISO 14726-2:2002</u> https://standards.iteh.ai/catalog/standards/sist/31df0be4-4d2c-4e4d-bd82b4164319dc08/iso-14726-2-2002

Annex A

(informative)

Explanations for some media/functions

A.1 Waste media

A.1.1 Description

This includes all media that contains dirt or other foreign substances.

These media are described in A.1.2 to A.1.6.

A.1.2 Black water

Black water includes the following.

- Sewage from all kinds of toilets, urinals and bidets. a)
- Sewage from all kinds of medical areas (hospital, pharmacy, etc.) and from all wash-basins, bathing tubes and b) scuppers located in these areas. (standards.iteh.ai) Sewage from rooms with living animals.
- C)
- Sewage that contains any sewage from a) to C. d)

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A.1.3 Waste oil/used oil

Oil drained after admissible working hours, exceeding admissible analysis values or containing dirt or other foreign substances.

A.1.4 Bilge water

Water from all kinds of ship bilges.

A.1.5 Exhaust gas

Exhaust from combustion engines, boilers and thermal fluid heaters.

A.1.6 Grey water

All kinds of sewage from sanitation rooms, provision rooms, ventilation rooms, cargo holds and decks, excluding black water.

A.1.7 Sewage, contaminated

All contaminated sewage, excluding black water and grey water.