

ICS 03.220.40

CCS R 63



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB 17381-2020

Regulation for surface colours of the visual aids to navigation

视觉航标表面色规定

Issued on: November 17, 2020

Implemented on: June 1, 2021

**Issued by: State Administration for Market Regulation;
Standardization Administration of China**

Table of Contents

1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 General provisions	1
2 Appendix A (informative appendix) Color samples for on-site verification of the surface color of visual aids to navigation	6

Foreword

This standard was drafted in accordance with the rules given in GB/T 1:1-2009: This standard replaces GB 17381-1998 "China Sea Area Visual Navigation Mark Surface Color Regulations": Compared with GB 17381-1998, the main technology The changes are as follows:

- Deleted the term and definition of "light reflectance" (see 3:2 in the:1998 edition);
- The term and definition of "brightness factor" has been added (see 3:2);
- Amended the "General Provisions" (see Chapter 4, Chapter 4 of the:1998 edition);
- Modified the boundary equation, intersection coordinates and brightness factor of ordinary surface color (see 5:1:1, Table 1, Table 2 and Figure 1,:1998 edition 5:1 and Table 1);
- Modified the boundary equation, intersection coordinates and brightness factor of the fluorescent color (see 5:2:1, Table 3, Table 4 and Figure 2,:1998 edition of 5:
- Modify the "retro-reflective color" requirements (see 5:3,:1998 edition of 5:3 and Table 3);
- Modified "Appendix A", changed from a normative appendix to an informative appendix, and the title was changed from "The surface color of visual aids in the sea area on the chromaticity chart "Marking" was changed to "Visual aids to navigation surface color field calibration color samples" (see Appendix A, Appendix A of the:1998 edition): This standard was proposed and managed by the Ministry of Transport of the People's Republic of China: The previous versions of the standard replaced by this standard are as follows:
- GB 17381-1998: The surface color of visual aids

1 Scope

GB 17381-2020 is the Chinese national standard on regulation for surface colours of the

visual aids to navigation, in the field of services and company organization. It carries no /T suffix, which in the Chinese system means compliance is mandatory: a product or a practice within its scope has to meet it to be lawfully made, sold or carried out in China. It was issued on 17 November 2020 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 June 2021. Classification: ICS 03.220.40, CCS R 63. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This standard specifies the composition, coloring method and color range of the surface color of visual aids: This standard applies to all visual aids along the coast and inland rivers of China:

2 Normative references

The following documents are indispensable for the application of this document: For dated reference documents, only the dated version applies to this article Pieces: For undated references, the latest version (including all amendments) applies to this document:

GB 4696 Water Navigation Aid Marks in China Sea GB/T 5698 Color terms

GB 5863 Inland water navigation mark

3 Terms and definitions

The terms and definitions defined in GB/T 5698 apply to this document: For ease of use, some of the GB/T 5698 items in GB/T 5698 are repeatedly listed below: These terms and definitions: 3:

1 Surface colour The color of the surface of a diffuse, opaque object: [GB/T 5698-2001, definition 4:13] 3:

2 Brightness factor Under the specified lighting and observation conditions, the brightness Lvs of a certain point on the surface of the non-self-luminous body in a given direction is completely the same as that under the same conditions: The ratio of the brightness Lvn of the reflected diffuser: The brightness factor is represented by betav: $\text{betav} = \frac{L_{vs}}{L_{vn}}$ [GB/T 5698-2001, definition 3:12]

4 General rules

1 The composition and painting method of the surface color of the visual aids should comply with the requirements of GB 4696 and GB 5863: 4:

2 The chromaticity range of the surface color should be measured using standard illuminator D65, geometric conditions of 45° normal (45/0) and 2° field of view: 4:

3 The surface color of visual aids to navigation is divided into three types: ordinary surface color, fluorescent color and retroreflective color: The colors used are red, yellow, green, blue, white, and black: Color, the chromaticity range of a color should be determined by the boundary between adjacent colors on the chromaticity diagram: 4:

4 Refer to Appendix A for the color samples of the surface color of visual aids during field calibration:

chinastandards.org · PREVIEW