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

GB/T 2893.1-2013

**Graphical symbols -- Safety colours and safety signs -- Part 1:
Design principles for safety signs and safety markings
(English Translation)**

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Foreword

GB/T 2893 "Graphical symbols - Safety colors and safety signs" is divided into four parts:

- Part 1: Design principles for safety signs and safety markings;
- Part 2: Design principles for product safety labels;
- Part 3: Design principles for graphical symbols for use in safety signs;
- Part 4: Colorimetric and photometric properties of safety sign materials.

This Part is Part 1 of GB/T 2893.

This Part was drafted in accordance with the rules given in GB/T 1.1-2009 "Directives

for standardization - Part 1: Structure and drafting of standards".

This Part replaces GB/T 2893.1-2004 "Graphical symbols - Safety colors and safety signs - Part 1: Design principles for safety signs and safety markings". Compared with GB/T 2893.1-2004, the main technical changes are as follows:

- DELETE the standardization process of safety signs (Chapter 6 of GB/T 2893.1-2004);
- DELETE the provisions on the lining in the design of safety signs (7.1 in GB/T 2893.1-2004)
- DELETE the design requirements for the combination of emergency exit signs and directional auxiliary signs (8.6 in GB/T 2893.1-2004);
- MOVE the relationship between the size of the safety sign and the observation distance, into the informative appendix (Chapter 10 of GB/T 2893.1-2004);
- DELETE the provisions on the chromaticity and luminosity properties of the safety color and contrasting color (Chapter 11 of GB/T 2893.1-2004).

This Part, using the redrafting method, modifies and adopts ISO 3864-1:2011 "Graphical symbols - Safety colors and safety signs - Part 1: Design principles for safety signs and safety markings".

Compared with ISO 3864-1:2011, this Part has the following technical differences:

- Use the GB/T 2893.3, which modifies and adopts the international standard, to replace the reference document ISO 3864-3 in the original international standard;
- Use the GB/T 2893.4, which modifies and adopts the international standard, to Graphical symbols - Safety colors and safety signs - Part 1:
Design principles for safety signs and safety markings

Important note: The colors, which are presented in the electronic files of this Part of GB/T 2893, cannot be viewed as real colors on the screen or used for printing.

Although this Part of GB/T 2893 is printed in China, in accordance with the color requirements (within the allowable deviation, according to visual inspection), the printed version is not used for color matching. For requirements on color matching,

please refer to GB/T 2893.4. This Part gives the color reference values quoted from the color sequence system, whilst giving the chromaticity attributes and photometric attributes.

1 Scope

This Part of GB/T 2893 specifies the safety colors and design principles of different types of safety signs and safety markings, which are mainly used in work areas and public places, to prevent accidents, prevent fires, transmit information on dangerous situations and emergency evacuation, etc. This Part also specifies the basic principles to be applied, in the development of standards containing safety signs.

This Part applies to all locations, that require attention to personal-related safety issues.

This Part does not apply to signals guiding railway, road, inland shipping, maritime and air traffic. In short, it does not apply to areas otherwise specified in laws and regulations.

2 Normative references

The following documents are essential for the application of this document. For dated references, only the dated version applies to this document. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 15565 (all parts) Graphical symbols - Terms

GB/T 2893.3 Graphical symbols - Safety colors and safety signs - Part 3: Design principles for graphical symbols for use in safety signs (GB/T 2893.3-2010, ISO 3864-3:2006, MOD)

GB/T 2893.4 Graphical symbols - Safety colors and safety signs - Part 4: Colorimetric and photometric properties of safety sign materials (GB/T 2893.4-2013, ISO 3864-4:2011, MOD)

3 Terms and definitions

The terms and definitions as defined in GB/T 15565, as well as the following terms and definitions, apply to this document.

3.1

Identifiability

The property of a graphic symbol, to make its symbolic element be understood as the object or shape it describes.

3.2

Safe observation distance

The maximum distance, FROM the position, where the observer can recognize the safety sign and have the opportunity to execute the safety sign's instruction, TO the safety sign.

4.1 The role of safety colors and safety signs is to make objects or environments, that

affect safety and health, quickly attract people's attention, AND to quickly understand specific information.

4.2 Safety signs shall only be used for instructions, which are related to personal safety

and health.

5 General meaning of geometric shapes and safety colors

Tables 1 and 2 give the general meaning of geometry, safety, contrasting colors.

Appendix A

(Informative)

The relationship between the size of the safety sign and the viewing distance

A.1 General

This Appendix is mainly concerned with the perceived quality of the graphic symbol elements in the safety sign. It has nothing to do with the intelligibility and meaning of the safety sign. In addition to being easy to understand, graphic symbols also need to have sufficient perceptual quality, in order for the end-users to correctly identify the symbol elements in the actual use environment.

Note 1: GB/T 16903.3 describes the concept of perceived quality of graphic symbol elements.

When the viewing distance of the safety sign increases, the viewing angle of the graphic