

ICS 81.040

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

**GB 11946-2013**

Replacing GB 11946-2001

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**Thermally toughened safety glass for ships**

船用钢化安全玻璃

**(English Translation)**

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400 x 560 414 418 574 578 58 F - E -

450 x 630 464 468 644 648 108 F - E -

500 x 710 514 518 724 728 108 - F - E

560 x 800 574 578 814 818 108 - F - E

$6 \pm 0.2$   $8 \pm 0.3$   $10 \pm 0.3$   $12 \pm 0.3$   $15 \pm 0.5$   $19 \pm 0.7$

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## Foreword

6.6,6.7,6.8,6.9 this standard are mandatory, the rest are recommended.

This standard was drafted in accordance with GB/T 1.1-2009 given rules.

This standard replaces GB 11946-2001 "Marine toughened safety glass", compared with GB 11946-2001 main technical differences are.

--- Abolition of the "use by" and "according to the processing status" category, an increase of "by product shape" category (see 42, 2001 version 3.2.);

--- Increased material requirements (see Chapter 5);

--- Appearance mass, with "point-like defects" instead of the "bubble"; increase the "point-like defect density" requirements, revised the "critical edge" missing

Notch allows the number (see 61, 2001 version 4.1.);

--- Size deviation, the cancellation and increased deviation rectangular window glass portion size requirements and revised the applicable product category

Type; modified 19mm thick glass porthole requirements for the thickness deviation  $\pm 0.7\text{mm}$ ; increased deviation from the other size requirements

Supply and demand of the agreed provisions; adds other dimensions thickness deviation requirements (see 62, 2001 version 4.2.);

--- Edge processing, the abolition of the "chamfer width" requirements, modify the requirements "Setback" (see 63, 2001 version 4.3.);

--- Increasing the provision of marine tempered safety glass parallelism (see 6.4);

--- Curvature, the curvature of the unity of all marine glass thickness requirement of 0.2 per cent (see 65, 2001 version 4.4.);

--- Optical distortion, increasing the "inner edge portion of the range of 25mm makes inspection requirements" requirement (see 68, 2001 version 4.7.);

--- Increased the marine tempered glass surface stress requirements (see 6.9).

This standard and ISO 21005.2004 "Ships and marine technology porthole windows and toughened safety glass" non-equivalent.

The standard proposed by China Building Materials Federation.

The industry standard by the National Standardization Technical Committee special glass and glass (SAC/TC447) centralized.

This standard is drafted by. China Building Material Test Certification Center, Beijing, Jiangyin Cheng Glass Co., Ltd., Beijing Tong-hui Technology Trimaran

Limited.

Participated in the drafting of this standard. Industrial Technology Qinhuangdao Yaohua Glass Co., Ltd., Qinhuangdao City harbor area Yuehua industrial technology glass,

Yixing City Yushi Special Glass Co., Ltd., Hangzhou Qiantang River Special Glass Technology Co., Ltd.

## 1 Scope

This standard specifies the terms and definitions made by the heat treatment process for marine tempered safety glass, classification, materials, requirements, test methods,

Inspection rules, marking, packaging, transportation and storage.

This standard applies to marine glass rectangular windows and portholes. For other uses of marine toughened safety glass, reference may be based on characteristics of their products

Use of this standard.

## 2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein

Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 1216 outside micrometer

GB/T 3385 marine scuttles and rectangular windows toughened safety glass of non-destructive strength testing stamping method

GB/T 5137.2-2002 Test methods for automotive safety glass - Part 2. Optical Performance Test

GB/T 5746 Marine ordinary rectangular windows

GB/T 8170 repair value expressed about the rules and limit values and judgment

GB/T 9056 metal ruler

GB 11614-2009 flat glass

GB/T 14413 Ship porthole

GB 15763.2-2005 architectural safety glass - Part 2. Tempered glass

JB/T 2369 reading microscope

## 3 Terms and Definitions

The following terms and definitions apply to this document.

### 3.1

Point-like defects spotfaults

Collectively, bubbles, inclusions, spots and other defects.

[GB 11614-2009, the definition 3.2]

Category 4

According to shape into a rectangular window toughened safety glass and toughened safety glass portholes.

## 5 material

Production of the original sheet of flat glass marine toughened safety glass used in the first-class goods shall conform to the requirements of GB 11614-2009. Its use