

ICS 81.040



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

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**Safety glazing materials in building -- Part 3: Laminated glass
(English Translation)**

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1 Scope

1 Scope

This part specifies the terms and definitions, classification, material, requirements, test methods and inspection rules of laminated glass in building.

This part is applicable to the laminated glass in building.

2 Normative References

The articles contained in the following documents have become part of this standard when they are quoted herein. For the dated documents so quoted, all the modifications (excluding corrections) or revisions made thereafter shall not be applicable to this Standard. For the undated documents so quoted, the latest editions shall be applicable to this Standard.

GB/T 308 Rolling Bearings - Steel Balls GB/T 531 Rubber, Vulcanized - Determination of Shore A Hardness GB/T 1216 External Micrometer GB/T 5137.2-2002 Test Methods of Safety Glazing Materials Used on Road Vehicles - Part 2: Optical Properties Tests GB/T 5137.3-2002 Test Methods of Safety Glazing Materials Used on Road Vehicles - Part 3: Radiation, High Temperature, Humidity, Fire and Simulated Weathering Resistance

Tests GB/T 9056 Metal Ruler GB 15763.2-2005 Safety Glazing Materials in Building - Part 2: Tempered Glass

3 Terms and Definitions

For the purpose of this standard, the following terms and definitions apply.

Interlayer

The material with separation and adhesive effects used between glass and/or plastic of two layers, which makes the laminated glass be provided with performance such as impact resistance, solar control and sound insulation.

Ionoplast interlayer the interlayer material that may be firmly bonded to the glass with a small amount of metal salts, and ethylene-methacrylic acid copolymer as the main material.

PVB interlayer

The interlayer material with polyvinyl butyral as the main material.

EVA interlayer

The interlayer material with ethylene-polyvinyl acetate copolymer as the main material.

Laminated glass

The general name of composite material with glass-glass and/or glass-plastic structures separated by interlayer and bonded together through treatment. The glass member with glass-glass structure separated by the interlayer and bonded together through treatment is common and mostly used.

4 Classification

4.1

Classification by shape.

4.2

Classification by shot-bag impact performance.

5 Material

The laminated glass consists of the combination of glass, plastic and interlayer materials. The materials adopted shall meet the requirements of relevant national standards, professional standards, technical conditions or order documents.

5.1 Glass

Float glass, ordinary flat glass, patterned glass, polished wired glass, wired patterned glass, etc. may be selected.

5.2 Plastic

Polycarbonate, polyurethane and polyacrylate may be selected.

The plastic may be colorless, colored or coated; transparent or translucent.

5.3 Interlayer

Materials with different types, components, mechanical and optical performance may be selected, such as ionoplast interlayer, PVB interlayer and EVA interlayer.

6 Requirements

The judgment of performance requirements and test methods for the laminated glass shall be in accordance with the relevant requirements specified in Table 1.

6.1.1.2 Linear defects in visible area

Quantity of linear defects in visible area shall meet the requirements of Table 3.

6.1.2 Defects in edge area

For the edge area of laminated glass with frames, the spot defects with diameter less than or equal to 5mm are permissible; if the spot defects are bubbles, the total area of bubbles shall not be greater than 5% of edge area.

6.1.3 Vents

The defect is not permissible.

6.1.4 Chip

The length or width shall not exceed the thickness of glass.

6.1.5 Delamination

The defect is not permissible.

6.1.6 Creases and streaks due to interlayer inhomogeneity

The defect is not permissible.

6.2.1 Permissible deviation in length and width

The permissible deviation in length and width of final laminated glass shall meet the requirements of Table 4.

6.3 Degree of curvature

Degree of curvature of the plane laminated glass is inspected in accordance with Section 7.5; for the arch plane, it shall not exceed 0.3%; for the wave plane, it shall not exceed 0.2%. Where the non-mineral glass is used as sheet material, the degree of curvature is jointly determined by the Supplier and the Demander.

6.4 Visible light transmittance

Visible light transmittance of the laminated glass is inspected according to Section 7.5 and jointly determined by the Supplier and the Demander.

6.5 Visible light reflectance

Visible light reflectance of the laminated glass is tested according to Section 7.6 and jointly determined by the Supplier and the Demander.

6.6 Wind load resistance performance

Whether it is necessary to carry out this test shall be jointly determined by the Supplier and the Demander in order to reasonably select the proper material, structure, specification and dimension of laminated glass under the given wind load, or to verify whether the material, structure, specification and dimension of selected laminated glass meet the requirements of designed wind pressure.

6.7 Heat resistance

The inspection is in accordance with Section 7.8: After the test, vents on the specimen are permissible and the part exceeding 13mm over the edge or vents shall be free from any bubbles or other defects.

6.8 Moisture resistance

The inspection is carried out in accordance with Section 7.9: After the test, the part exceeding original edge, cut edge and vents by 15mm, 25mm and 10mm respectively shall be free from any bubbles or other defects.