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

GB/T 12513-2026

Replacing GB/T 12513-2006

**Fire-resistance tests for glazed elements and window
assemblies**

镶玻璃构件和窗组件耐火试验方法
(English Translation)

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents".

Drafting.

This document replaces GB/T 12513-2006 "Test Method for Fire Resistance of Glass-Inlaid Components". Compared with GB/T 12513-2006, except for the structural...

Aside from adjustments and editorial changes, the main technical changes are as follows.

- a) Added some insulated glazed components and window assemblies (see Chapter 1, Chapter 1 of the 2006 edition);
- b) Terms and definitions have been changed (see Chapter 3, Chapter 3 of the 2006 edition);
- c) An outdoor fire temperature rise curve has been added (see 5.1.2);
- d) A set isothermal curve has been added (see 5.1.3);
- e) Increased load-bearing requirements (see 5.3);
- f) The specimen dimensions were changed (see 6.3, 2006 edition);

- g) Increased specimen load-bearing requirements (see 6.6);
- h) Temperature deviation requirements for outdoor fire temperature rise curves and set constant temperature curves have been added (see 7.1);
- i) A method for temperature measurement using movable thermocouples has been added (see 7.2.2);
- j) The measurement of the highest single-point temperature has been modified, adding measurements at the midpoint of the frame and middle frame, the connection between the frame and middle frame, and the connection between the middle frames.

The requirement for temperature measurement points to be installed at the connection point (see 7.2.2.2, 2006 edition 7.2.2.2);
- k) The measurement points for deformation on the unexposed surface of the specimen were changed, and a specimen load-bearing test procedure was added (see 7.6, 2006 version 7.6);
- l) The criteria for determining the thermal insulation properties of some insulated glazed components and window assemblies have been expanded (see 8.3);
- m) Added the determination of the load-bearing capacity of glazed components and window assemblies (see 8.5).

This document was drafted with reference to ISO 3009:2003 "Fire resistance test - Building components with glass panels", and the degree of consistency is non-equivalent.

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document was proposed by the National Fire and Rescue Administration.

This document is under the jurisdiction of the National Fire Protection Standardization Technical Committee (SAC/TC113).

1 Scope

This document describes the fire resistance test methods for insulating, partially insulating, and non-insulating glazed components and window assemblies.

This document applies to fire resistance testing of various vertically, inclined, and horizontally installed glazed components and window assemblies.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included.

For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies.

This document.

GB/T 5907 (All Parts) Firefighting Glossary GB/T 9775 Paper-faced gypsum board GB/T 9978.1 Fire resistance test methods for building components - Part 1: General requirements GB/T 26784 Fire resistance testing of building components. optional and additional test procedures.

3 Terms and Definitions

The terms and definitions defined in GB/T 5907 (all parts), GB/T 9978.1, GB/T 26784, and the following terms and definitions apply to this document.

glazed element

A partition component consisting of one or more pieces of transparent or semi-transparent glass set in a glass frame.

Window assemblies

Movable windows and their components connected to glazed elements.

Aspect Ratio

The ratio of the longer side of the glass exposed to fire to the shorter side exposed to fire.

Installation gap expansion Permissible expansion dimensions between the glass and the glass frame.

Note: The installation gap consists of two directions. For example, for vertical components, it consists of the height direction and the width direction, as shown in I7 of Figure 1.