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

GB/T 9978.3-2026

Replacing GB/T 9978.3-2008

**Fire-resistance tests of building elements - Part 3: Guide to
application of test methods and results**

建筑构件耐火试验方法 第3部分：试验方法和试验结果应用指南

(English Translation)

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Table of Contents

Preface	
Introduction	
1 Scope	
2 Normative References	
3 Terms and Definitions	
4 Standard Test Procedure	
4.1 Overview	
4.2 Heating Mode	
4.3 Refractory Testing Furnace	
4.4 Specimen Adjustment	
4.5 Fuel Input and Heat Production	
4.6 Pressure Measurement Technology	
4.7 Additional test procedures after heating is stopped	
4.8 Specimen Design	
4.9 Specimen Structure	
4.10 Specimen orientation	
4.11 Specimen Loading	
4.12 Boundary conditions and constraints and their impact on bearing capacity	
4.13 Calibration	
5 Fire resistance performance indicators 7.	
5.1 Purpose	
5.2 Load-bearing capacity	
5.3 Integrity	
5.4 Thermal insulation	
5.5 Thermal radiation	
5.6 Other performance characteristics	
6 Grading 9.	
7 Repeatability and reproducibility 9.	
7.1 Overview	
7.2 Repeatability	
7.3 Reproducibility	
8 Scope of application of test results	

- 8.1 Overview
- 8.2 Interpolation
- 8.3 Extrapolation Method
- 8.4 Application
- 9 The Relationship Between Fire Resistance Performance and Building Fires
- Appendix A (Informative) Uncertainties in Fire Resistance Testing
 - A.1 Overview
 - A.2 Important Factors
 - A.3 Secondary Factors
 - A.4 Specimen
- Reference

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 is Part 3 of GB/T 9978, "Test Methods for Fire Resistance of Building Components". GB/T 9978 has already published the following parts.

- Part 1: General Requirements;
- Part 2: Guidelines for measuring the uniformity of fire resistance test specimens;
- Part 3: Test Methods and Application Guidelines for Test Results;
- Part 4: Special Requirements for Load-Bearing Vertical Separators;
- Part 5: Special Requirements for Load-Bearing Horizontal Separators;
- Part 6: Special Requirements for Beams;
- Part 7: Special Requirements for Columns;
- Part 8: Special Requirements for Non-Load-Bearing Vertical Separators;
- Part 9: Special Requirements for Non-Load-Bearing Ceiling Components;
- Part 10: Special requirements for structural systems.

This document replaces GB/T 9978.3-2008 "Fire Resistance Test Methods for Building Components - Part 3: Test Methods and Application of Test Data".

Compared with GB/T 9978.3-2008, the main technical changes in the "Explanation" are as

follows, apart from structural adjustments and editorial modifications.

- a) Increased requirements for the size of the test furnace (see 4.3.2);
- b) The specimen design requirements have been changed (see 4.8, 2008 version 4.8);
- c) Added requirements for specimen orientation (see 4.10);
- d) Calibration-related requirements have been changed (see 4.13, 4.12 in the 2008 version);
- e) The requirement for heat radiation as a fire resistance performance indicator has been added (see 5.5);
- f) The overview of the application of the test results has been changed (see 8.1, 2008 edition of 8.1).

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).

Introduction

Fire resistance testing methods for building components are used to evaluate their fire resistance performance. Due to the diversity and complexity of fire conditions, real fire tests are employed.

Evaluating the fire resistance performance of building components under actual fire conditions presents significant technical challenges; therefore, it is necessary to establish standardized test conditions and adhere to relevant standards.

A standardized testing procedure is used to test the fire resistance performance of building components. This ensures that test results obtained from similar building components are comparable and can be used to...

For further comparison and analysis.

The GB/T 9978 series of standards aims to provide a unified test method for evaluating the fire resistance performance of various building structural components. It is proposed that ten departments...

Composition.

---Part 1: General Requirements. The purpose is to determine general test procedures for the fire resistance performance of various structural components under standard fire conditions.

method.

---Part 2: Guidelines for measuring the uniformity of fire resistance of test specimens. The aim is to determine a method for measuring the uniformity of fire resistance of test specimens.

Test method for uniformity of fire exposure during fire testing.

---Part 3: Guidelines for the Application of Test Methods and Results. The purpose is to provide guidelines for the application of fire resistance testing methods and data.

guide.

---Part 4: Special Requirements for Load-Bearing Vertical Partitions. The purpose is to determine the suitability of a load-bearing vertical partition when one side is exposed to fire.

The test method for fire resistance performance.

---Part 5: Special Requirements for Load-Bearing Horizontal Dividing Members. The purpose is to determine the requirements for load-bearing horizontal dividing members whose surfaces are exposed to fire.

The test method for fire resistance performance.

---Part 6: Special Requirements for Beams. The purpose is to determine the test methods for the fire resistance performance of beam components.

---Part 7: Special Requirements for Columns. The purpose is to determine the test methods for the fire resistance performance of column components.

---Part 8: Special Requirements for Non-Load-Bearing Vertical Partitions. The purpose is to determine the requirements for non-load-bearing vertical partitions that are exposed to fire on one side.

The test method for fire resistance performance.

---Part 9: Special Requirements for Non-Load-Bearing Ceiling Components. The purpose is to determine the fire resistance of non-load-bearing ceiling components exposed to fire at the bottom.

Test methods.

---Part 10: Specific Requirements for Structural Systems. The purpose is to determine the fire resistance of structural systems under overall or partial fire exposure.

Test methods.

Fire resistance testing methods for building components Part 3: Test Methods and Guidelines for the Application of Test Results