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

GB/T 17428-2026

Replacing GB/T 17428-2009

Fire resistance test for structural ducts

建筑管道耐火试验方法

(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 17428-2009 "Fire Resistance Test Method for Ventilation Ducts". Compared with GB/T 17428-2009, except for the structure...

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

- a) The scope has been changed (see Chapter 1, Chapter 1 of the 2009 edition);
- b) The requirements for the test apparatus have been changed (see Chapter 4, Chapter 4 of the 2009 edition);
- c) The requirements for the test equipment for fire resistance testing of vertical pipes have been increased (see 4.2.1);

d) The requirements for the test equipment, test conditions, specimen requirements, specimen installation, test procedures, and judgment of the fire resistance test for smoke exhaust ducts have been increased.

Define the criteria (see 4.2.2, 5.2, 6.2.2, 7.3, Chapter 10, and Chapter 11);

e) Added requirements for the test equipment, test conditions, specimen requirements, test procedures, and judgment criteria for fire resistance testing of kitchen and bathroom exhaust ducts.

(See 4.2.3, 5.3, 6.2.3, Chapter 10, and Chapter 11);

f) The test conditions were changed (see Chapter 5, Chapter 5 of the 2009 edition);

g) The requirements for test specimens have been changed (see Chapter 6, Chapter 6 of the 2009 edition);

h) The installation requirements for the test specimens have been changed (see Chapter 7, Chapter 7 of the 2009 edition);

i) The specimen curing requirements have been changed (see Chapter 8, Chapter 8 of the 2009 edition);

j) The direct application of the test results has been changed (see Chapter 14, Chapter 14 in the 2009 edition).

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 test apparatus, test conditions, test specimens, and test samples for horizontal and vertical piping installed within buildings under standard (specified) fire conditions.

The installation, maintenance, instrument use, test procedures, judgment criteria, test result presentation, test report, and direct application scope of test results.

This document applies to ventilation ducts and mechanical smoke exhaust systems of ventilation, air conditioning, and mechanical pressurized air supply smoke control systems installed and used in buildings.

When building ducts, such as the exhaust ducts of the kitchen and bathroom ventilation systems, are subjected to external and internal fires...

The fire resistance performance was tested.

This document is not applicable to.

- a) Fire resistance depends on the piping of the surrounding fire-resistant components;
- b) Pipes with access doors, unless the access doors are included in the pipes for testing;
- c) Pipes with only two or three sides;
- d) Hanging fasteners that connect to walls or floors.

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 2624 (all parts) Measurement of full-pipe fluid flow rate using a differential pressure device installed in a circular cross-section pipe
GB/T 5907 (All Parts) Firefighting Glossary
GB/T 9978.1 Fire resistance test methods for building components - Part 1: General requirements
GB 15930 Fire-resistant valves for building ventilation and smoke exhaust systems

3 Terms and Definitions

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

ventilation duct

Tubular structures used to transport clean air or remove polluted air in building ventilation, air conditioning, and mechanical pressurization systems.

aisle.

Note: Can be installed horizontally or vertically, excluding kitchen and bathroom exhaust ducts.

Smoke extraction duct in a building's fire-fighting mechanical smoke exhaust system, there is a tubular channel used to remove hot smoke generated by a fire.

Note: Can be installed horizontally or vertically.

A tubular channel in a public building used to remove cooking fumes from the kitchen or foul gases from the bathroom.