

ICS 29.060.20

CCS K13



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

GB/T 12666.2-2008

Replacing GB 12666.3-1990

**Test method on a single wire or cable under fire conditions -
Part 2: Horizontal specimen flame test**

单根电线电缆燃烧试验方法 第2部分：水平燃烧试验

Issued on: June 30, 2008

Implemented on: April 1, 2009

**Issued by: General Administration of Quality Supervision, Inspection and
Quarantine of the People's Republic of China;
Standardization Administration of China**

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Foreword

GB/T 12666 "for a single insulated wire and cable fire test method" is divided into three parts.

--- Part 1. Vertical burning test;

--- Part 2. Horizontal burning test;

--- Part 3. tilt combustion test. This section GB/T Part of 212,666. This Part replaces GB/T 12666.3-1990 "burning wire and cable test methods - Part 3 single wire or cable horizontal burning test Test methods "and GB/T 12666.1-1990" burning wire and cable test methods - Part

1 General "part of the content included in this section. This part of GB/T 12666.1 and GB/T 12666.3-1990 compared to the main changes are as follows:

--- Sample length was changed to "about 250mm" (GB/T 12666.3-1990 in Chapter 3, Section 3 of this edition);

--- Ignition source was changed to "adopt the provisions of GB /Z5169.15-2001 blowtorch" (GB/T 12666.1-1990 Table

2 Excerpts 5.1);

--- Test environment was changed to "at least a sealed test chamber volume of 4m³" (GB/T 12666.3-1990 2.2, Excerpts 5.3);

--- Blowtorch and horizontal angle changed to "20 °" (GB/T 12666.3-1990 4.1, this version 5.2);

--- Blowtorch sample surface distance and revised as "40mm" (GB/T 12666.3-1990 4.1, this version 5.2);

--- Flame modification for the fire as "flame a total height of (125 ± 10) mm, blue inner cone height (40 ± 2) mm" (GB/T 12666.1- Table 2, Chapter 6 of this edition 1990);

--- Modify the time for the fire "30s" (GB/T 12666.3-1990 4.1, Chapter 6 of this edition);

--- Results to determine the char length was changed to "no more than 100mm" (GB/T 12666.3-1990 in Chapter 5, Chapter 6 of this edition);

1 Scope

GB/T 12666.2-2008 is the Chinese national standard on test method on a single wire or cable under fire conditions - part 2: horizontal specimen flame test, in the field of electrical engineering. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 30 June 2008 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 1 April 2009. Classification: ICS 29.060.20, CCS K13. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This section GB/T 12666 apply to flame test single wire or cable in a horizontal state by a predetermined direct flame combustion performance. GB/T 12666 provisions of this part of the single wire or cable horizontal burning test equipment and methods, and gives the recommended performance requirements.

2 Normative references

The following documents contain provisions which, through reference

GB/T 12666 in this section constitute provisions of this section. For dated reference documents Member, all subsequent amendments (not including errata content) or revisions do not apply to this section, however, encouraged to reach under this section Parties to research agreement to use the latest versions of these documents. For undated reference documents, the latest versions apply to this section. GB /Z5169.15-2001 Fire hazard testing for electric and electronic products Test methods 500W nominal test flame and guidance (IEC /T R260695-2-4/2.1994, IDT)

3 Sample

Test specimens from the finished wire and cable or a cord, about 250mm.

4 Sample processing

Before testing, samples, devices and ambient air should reach thermal equilibrium ($23.0 \pm$

5.0) °C at temperature, ambient air temperature throughout the test period It should be stabilized at (23.0 ± 5.0) °C.

5 Test Equipment

5.1 ignition source Ignition source shall comply with the provisions of GB 4.2.1 /Z5169.15-2001 laboratory burner, in accordance with GB /Z5169.15-2001 Approved Method

4.4 provides for burner calibration. Arbitration test, the test should be used for technical grade methane gas (purity of at least 98.0%), the nominal calorific value 37.3MJ/m³. Allowed to make Other levels of methane, natural gas, coal gas or propane, regardless of the circumstances, should be able to provide calibration gas flame. Blowtorch flame should be calibrated at least once every two weeks. Such as the use of arbitration is not a test of technical grade methane, a day before the test to deal with spray Lamp flame calibration. When filling gas tank or any gas exchange device is changed, calibration response blowtorch flame.

5.2 Fixed burner base with a wedge Fixed torch torch lamp base should be able to go with a wedge from a vertical position to a vertical position and angle of 20 °, while the tube opening plane Cone touches the sample surface distance between the points should be 40mm for the fire position within the intersection and the longitudinal axis of the test flame tube of blue. blowtorch In time for the fire position, the longitudinal axis of the burner tube should be in the sample perpendicular to the longitudinal axis at the same time within the vertical plane through the midpoint of the sample, the test flame Blue cone just touches the center line of the front surface of the specimen midpoint.

5.3 LABORATORY Laboratory should be enclosed and equipped with airtight glass window frames, doors or other means to operate the equipment and observation. Each test chamber straight Wire size should be at least 610mm or more, and the test chamber should have a volume of at least 4m³, including the volume of the exhaust passage, an exhaust passage