

ICS 29.060.20

CCS K13



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

**GB/T 12666.3-2008**

Replacing GB/T 12666.1-1990

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**Test method on a single wire or cable under fire conditions -  
Part 3: Slanting specimen flame test**

单根电线电缆燃烧试验方法 第3部分：倾斜燃烧试验

**Issued on: June 30, 2008**

**Implemented on: April 1, 2009**

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**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 312,666. This Part replaces GB/T 12666.4-1990 "burning wire and cable test methods - Part 4. single wire or cable inclined combustion 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 portion of the GB/T 12666.1-1990 and GB/T 12666.4-1990 main changes are as follows:

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

2 Excerpts 5.1);

--- Sample length was changed to "about 300mm" (GB/T 12666.4-1990 in Chapter 3, Section 3 of this edition);

--- Flame modification for the fire as "flame of the total height of  $(130 \pm 10)$  mm, blue inner cone height  $(35 \pm 2)$  mm" (GB/T 12666.1- Table 2, Chapter 6 of this edition 1990);

--- Result of the judgment was changed to "torch flame is removed from the specimen within the 60s, I extinguished the flame on the specimen" as the lowest passing the test strip Member (GB/T 12666.4-1990 Chapter 5, Chapter 7 of this edition). This part is proposed by the China Electrical Equipment Industrial Association. This part of the National Standardization Technical Committee Wire and Cable (SAC/TC213) centralized. This part of the unit responsible for drafting. Shanghai Electric Cable Research Institute. Participated in the drafting of this section. Yangzhou Shuguang Cable Co., Ltd., Shanghai Ya'alon Industry

Group Co., Ltd. shares have Baosheng Science and Technology Innovation Ltd., Tianjin Jinshan Electric Wire & Cable Co., Ltd., Anhui Hualing Cable Group Co., Ltd., Shanghai Nanyang Electric Wire Co., Ltd. The main drafters of this section. Guo Han Yang, Liang Guohua, Lubang Xiu, Tangchong Jian, Zheng Guojun, Huguang Zheng, Qu Wei. This part of the standard replaces the previous editions are.

--- GB/T 12666.1-1990, GB/T 12666.4-1990. Single wire and cable fire test method Part 3. tilt combustion test

## 1 Scope

GB/T 12666.3-2008 is the Chinese national standard on test method on a single wire or cable under fire conditions - part 3: slanting 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.

Retardant GB/T 12666 in this section applies to test single wire or cable in an inclined state directly to the combustion flame of the provisions performance. GB/T 12666 provisions of this part of the single wire or cable tilt combustion 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 300mm.

## 4 Sample processing

Before testing, samples, devices and ambient air should reach thermal equilibrium ( $23.0 \pm 5.0$ ) °C at temperature, air temperature throughout the test period around Degree should be stabilized at ( $23.0 \pm 5.0$ ) °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/m<sup>3</sup>. 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 metal cover Metal cover width 310mm, depth of about 360mm, height of about 610mm, its front and an open top. The sample should be kept within the axis of the cover 60 ° angle with the horizontal jig.

5.3 Stopwatch Accuracy of 0.1s stopwatch.

## 6 Test procedure

The intermediate sample is fixed in a metal cover, the sample in the horizontal axis and 60 ° inclination.