ICS 13.220.40; 29.020
CCS K04

NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 5169.15-2015

Fire hazard testing for electric and electronic products - Part 15: Test flames - 500 W flames - Apparatus and confirmational test methods

电工电子产品着火危险试验 第15部分：试验火焰 500W火焰 装置和确认试验方法

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Foreword

GB/T 5169 "Fire hazard testing for electric and electronic products" have or plan to release the following sections.

--- Part 1. Terminology concerning fire tests;

--- Part 2. Guidance for assessing the fire hazard - General;

--- Part 5. Test flames - Needle-flame test methods for confirming test methods and guidelines;

--- Part 9. Guidance for assessing the fire hazard of preselection testing procedures - General;

--- Part 10. Glowing/hot wire based test methods - Glow - wire apparatus and common test procedure;

--- Part 11. Glowing/hot wire based glow wire flammability test methods of the finished product;

--- Part 12. Glowing/hot wire based test methods for materials glow wire flammability index (GWFI) test methods;

--- Part 13. Glowing/hot wire based test methods - Glow - wire ignition temperature materials (GWIT) test methods;

--- Part 14. Test flames - 1kW nominal pre-mixed flame - Apparatus, confirmatory test arrangement and guidance;

--- Part 15. Test flames - 500W flames - Apparatus and confirmation test methods;

--- Part 16. Test flames - 50W horizontal and vertical flame test methods;

--- Part 17. Test flames - 500W flame test methods;

--- Part 18. General toxic combustion stream;

1 Scope

GB/T 5169.15-2015 specifies the flame itself. Fire hazard testing of electrical and electronic products works by applying a defined flame to a specimen for a defined time and observing what happens, and the entire comparability of those tests rests on every laboratory's flame being the same flame. This part of GB/T 5169 gives the requirements for two arrangements that produce a nominal 500 W premixed test flame roughly 125 mm in overall height, together with the confirmational test methods by which a laboratory demonstrates that its burner is actually delivering it. Method A uses a conventional adjustable burner with methane as fuel; method C uses a non-adjustable arrangement fuelled by methane or propane. Both the apparatus and the procedure for confirming the flame's heat output and dimensions are specified, since a burner that has drifted produces results that look valid and are not. Filed under ICS 13.220.40 and 29.020 with CCS K04, it is a basic standard: its readers are the testing laboratories running glow-wire and needle-flame programmes, and the manufacturers of appliances, enclosures and insulating materials whose flammability claims are established with this flame.

GB/T 5169 provisions of this section, two generating 500W nominal pre - mixed test flame specific requirements. The total height of the flame It was about 125mm. This section gives two test methods. Method A flame methane fuel, Method C flame methane or propane as fuel.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 16839.1-1997 Thermocouples - Part 1. indexing table (IEC 60584-1.1995, IDT)

GB/T 16839.2-1997 thermocouple Part 2. Tolerances (

IEC 60584-2. 1982, IDT) ISO /

IEC 13943.2008 Fire Safety Glossary (Firesafety-Vocabulary) ASTM-B187/B187M-06 copper bus bar, wire and sections as well as general purpose wire rod, bar and section Specifications (StandardSpecifica- tionforCopper, BusBar, Rod, andShapesandGeneralPurposeRod, Bar, andShapes)

3 Terms and Definitions

ISO /IEC 13943.2008 and the following definition of terms and definitions apply to this document.

3.1 Standard 500W nominal test flame standardized500Wnominaltestflame Subject to this

section and to meet all the technical requirements of the test flame Chapters 4 and 5 regulations.

4 Method A

--- using conventional means generates standard 500W nominal test flame

4.1 Requirements This method produces standard 500W nominal test flame are as follows: Devices

--- using FIG A.1 (Appendix A), the generation;

--- Using the apparatus shown in Figure A.2, at 23 °C, 0.1MPa1) conditions to 965mL/min ± 30mL/min flow rate for To the purity of not less than 98% of methane gas, and the back pressure reaches 125mm ± 5mm water column. The flame should be symmetrical and stable, and the test results can be confirmed 54s ± 2s

4.4 requirements. Figure A.3 should be used to confirm the test apparatus shown in Fig. In the laboratory fume hood/chamber, a gauge measuring the flame (see Figure 1) with the approximate dimensions shown in Figure 3 should read. 1) correction based on the measurement structure under actual conditions of use of the data.