

ICS 13.220.50

CCS C82



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

GB 29415-2013

Fire-resistant cable trunking

耐火电缆槽盒

Issued on: September 18, 2013

Implemented on: August 1, 2014

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

Table of Contents

1	Scope
2	Normative references
3	Terms and Definitions
4	Control Cable
4.1	Classification and Code
5	Requirements
5.1	Appearance Each member surface
5.2	Material and Finish
6	Test methods
6.2	Material and Finish Sheet metal thickness used in production
6.5.1	Test apparatus
6.5.2	Test conditions Elevated temperature
6.5.3	Specimen requirements The total length of the flame -
6.5.4	Install
6.5.5	Test Procedure Beginning and end of the test
7	Inspection rules
7.2	Type inspection

Foreword

This standard 5.3,5.4,

5.5 and Chapter 7 are mandatory, the rest are recommended. This standard was drafted in accordance with GB/T 1.1-2009 given rules. The German standard reference standard DIN4102-12.1998 "Fire behavior of building materials and building components - Part 12. Cable Systems Circuit integrity maintenance requirements and testing "related to the development of technical content. The standard proposed by the People's Republic of China Ministry of Public Security. This standard by the National Standardization Technical Committee member fire building fire resistance of the Technical Committee (SAC/TC113/SC8) centralized. This standard is drafted by: Ministry of Public Security in Tianjin Fire Research Institute. Participated in the drafting of this standard. Shishi City Tianhong Metal Products Co., Ltd. The main drafters of this standard. Li Bo, Zhao Huali, Michael, Leahy whole, Dong Jing, Wang Peiyu, Nguyen Tao, Diaoxiao Liang, Wang Lan, Bai Shuying. Fire-resistant cable tray

1 Scope

GB 29415-2013 is the Chinese national standard on fire-resistant cable trunking, in the field of environment and health protection, safety. It carries no /T suffix, which in the Chinese system means compliance is mandatory: a product or a practice within its scope has to meet it to be lawfully made, sold or carried out in China. It was issued on 18 September 2013 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 August 2014. Classification: ICS 13.220.50, CCS C82. 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 standard specifies the terms and definitions fire resistant cable tray, product classification, requirements, test methods, inspection rules and signs, packaging, transportation And storage. This standard applies to industrial and civil use of the indoor environment, fire-resistant cables laid below 1kV cable trays. Outdoor ring Habitat use of fire-resistant cable tray can refer to this standard.

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 4208-2008 shell protection (IP code)

GB 8624 Classification for burning behavior of building materials and products

GB/T 9969 General Instructions industrial products

GB/T 9978.1-2008 building components resistance test methods - Part 1. General requirements

GB/T 14436 General industrial products assurance documents

GB 14907 fireproof coatings CECS31.2006 steel cable bridge engineering design specifications

3 Terms and Definitions

CECS31.2006 and defined the following terms and definitions apply to this document.

3.1 Fire-resistant cable tray fire-resistantcabletrunk Cable tray system, a key component of a non-porous or perforated tray and the tray cover and meets the prescribed fire to maintain

the working time Requirements for paving and support continuous rigid structure cable and associated connecting devices.

3.2 Refractory maintain working time working duration under fire test Fire resistance tests conducted under standard temperature conditions, since the start of the test to the 3A fuse blow time within the sample compartment cable connections.

3.3 Additional load additional load When applied to the trays fire resistance test load, when the value of the sample compartment and the rated load test from cable laid in the groove box Weight difference.

4 Control Cable

6.5.5.2 Measurement and Observation During the test, measurement and observation should be carried out as follows:

- a) fire resistance test furnace temperature, measured once every 1min and recorded;
- b) fire resistance test furnace pressure measured once every 2min and recorded;
- c) refractory to maintain working time, after the start of the test, 3A fuse always observe the situation and 3A fuse blow time record.

6.5.6 determination condition If the 3A fuse blows, it means that the cartridge slot has been unable to maintain its internal cables continue to work at this time is to maintain the work compartment fire time.

4.1 Classification and Code

4.1.1 fire-resistant cable tray (hereinafter referred to as "trays") according to the following structure is divided into two categories, the classification code in Table 1.

- a) compound and the general type, wherein the composite type can be divided into lattice type and sandwich-type;
 - b) non-breathable and breathable. Table 1 compartment by structure type and classification codes
- | Structure type | Compound | Fasting | sandwich-type | formula | normal type | Code | FK | FX | P |
|----------------|----------|---------|---------------|---------|-------------|------|----|----|---|
| Code | TFK | TFX | TP | | | | | | |

4.1.2 compartment fire resistance is divided into four (Table 2). Table 2 compartment fire resistance rating Fire resistance classification F1 F2 F3 F

5.1 Appearance Each member surface

5.1.1 trays should be smooth, not allowed to have cracks, indentation and apparent irregularities, hammer marks, burrs and other defects.

5.1.2 groove weld surface of the cartridge should be smooth, not allowed to have pores,

slag, porosity and other defects.

5.1.3 protective layer trays coated parts should be uniform, there should be no flaking, peeling, raised, leakage flow coating or other defects.

5.1.4 trays mark on the nameplate applied should be solid, reliable, nameplate legible and easy to read, the contents of which shall conform to 8.1.

5.2 Material and Finish

5.2.1 Materials used in making trays and structure should meet the design requirements.

5.2.2 trays produced using sheet metal, the minimum thickness of the sheet should be consistent CECS31.2006 specified in 3.6.2.

5.2.3 trays produced non-metallic sheet, the combustion performance should be consistent with the provisions of GB 8624 A-level.

5.2.4 trays fabricated with a core materials, the combustion performance should be consistent with the provisions of GB 8624 A-level.

5.2.5 trays surface of metal parts should be galvanized or other anti-corrosion coating process according to the different environmental needs, should meet the quality of anti-corrosion treatment Co CECS31.2006 specified in the 3.6.16,3.6.17,

3.6.18 and 3.6.19.

5.2.6 trays were surface-coated steel structure fire fire protection, coating performance should be consistent with the provisions of GB 14907.

5.3 carrying capacity The maximum deflection shall be marked with the groove box factory compartment in the technical documentation rated uniform load, trays rated to withstand even Loads Its span ratio should not exceed 1/200.

5.4 Degree of protection Compartment as the laying of cables and associated connecting member of the housing, the protection level not less than GB 4208-2008 predetermined IP40.

5.5 fire resistance Fire Resistance compartment shall comply with the provisions of Table 2.

6 Test methods

6.1 Appearance Trays of visual appearance, hand touch method of combining inspection.

6.2 Material and Finish Sheet metal thickness used in production

6.2.1 compartment using micrometer to measure, for each part (or the bottom tray, ladder, side panels and cover, etc.) Sheet metal thickness used should be examined separately; in the case of a groove member arbitrarily selected five different regions, each cut one size