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

GB/T 17737.318-2018

**Coaxial communication cables -- Part 1-318: Mechanical test
methods -- Heat performance tests**

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Foreword

GB/T 17737 "Coaxial Communication Cable" has or plans to issue the following parts.

--- Part 1. General rules, definitions and requirements;

--- Section 1-31 . Mechanical test methods ; Ellipticity test ;

-- Part 1-302 . Mechanical test methods ; eccentricity test ;

-- Part 1-304 . Mechanical test methods ; Impact test ;

Part 1-108 . Mechanical test methods -- Tensile strength and elongation test of copper clad metal ;

--- Part 1-310. Mechanical test methods Torsional characteristics of copper clad metal;

--- Part 1-313. Mechanical test methods Adhesion of media and sheath;

--- Part 1-314. Mechanical test methods Bending test of cables;

--- Part 1-316. Mechanical test methods Maximum tensile strength test of cables;

--- Part 1-317. Mechanical test methods Cable compression test;

--- Sections 1-318. Mechanical test methods Thermal performance test;

--- Part 1-324 . Mechanical test methods Cable abrasion resistance test ;

--- Part 1-325 . Mechanical test methods Wind - induced vibration test ;

This section is Part 1-318 of GB/T 17737.

This section was drafted in accordance with the rules given in GB/T 1.1-2009.

This section uses the translation method equivalent to the use of IEC 61196-1-318.2008 "coaxial communication cable part 1-318. mechanical test side

Thermal performance test".

The Chinese documents that have a consistent correspondence with the normatively quoted international documents in this section are as follows.

---GB/T 17737.1-2013 Coaxial telecommunication cables Part 1. General specifications General, definitions and requirements (IEC 61196-1.

2005, IDT);

---GB/T 2423.2-2008 Environmental testing for electric and electronic products Part 2. Test methods Test B. High temperature

(IEC 60068-2-2.2007, IDT).

1 Scope

This part of GB/T 17737 applies to coaxial communication cables. It specifies test methods for determining the following properties.

--- Heat resistance of the medium. The ability of the medium to withstand mechanical deformation due to radial pressure exerted by the inner conductor at high temperatures;

--- Heat exposure. The ability of the media or jacket to withstand high temperatures;

--- Thermal properties of semi-rigid cables. The ability of semi-rigid cable structures to withstand medium expansion at elevated temperatures;

--- Dimensional stability. The displacement of each component of the cable to verify the suitability of the connector for the cable.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only dated versions apply to this article

Pieces. For undated references, the latest version (including all amendments) applies to this document.

IEC 61196-1 Coaxial communication cable Part 1. General specification General rules, definitions and requirements (Coaxialcommunication

cables-Part 1.Generic specification-General,definitionsandrequirements)

IEC 60068-2-2 environmental test part 2-2. test test B. high temperature (Environmental testing-Part 2-2.

Tests-TestsB. Dryheat)

3 Terms and definitions

The terms and definitions defined by IEC 61196-1 apply to this document.

4.1 sample preparation

The specimen shall be taken from the finished cable and its length shall be at least 30 times the outside diameter of the cable.

Connect the weights specified in the relevant cable specification to the inner conductors on both ends of the cable specimen.

4.2 Procedures

The specimen shall be symmetrically curved on a horizontal mandrel with the radius of the core being the minimum bending radius of the cable specified in the relevant cable specification.

Free hanging weights on the inner conductor. The test specimen shall be heated to the relevant cable specification according to the test Bb of IEC 60068-2-2.

Set the temperature and keep it for at least 8h.

At the end of the heating time, the weight was removed and the sample was allowed to cool for 1 hour without further bending under the test standard atmospheric pressure conditions.

Peel the specimen and measure the displacement of the inner conductor and the center of the cable.

4.3 Requirements

The distance of the inner conductor from the center of the cable should not exceed 15% of the nominal diameter of the medium.