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

GB/T 5023.2-2008

Replacing GB 5023.2-1997

**Polyvinyl chloride insulated cables of rated voltages up to and
including 450/750 V -- Part 2: Test methods**

额定电压450/750V及以下聚氯乙烯绝缘电缆 第2部分：试验方法

(English Translation)

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Table of Contents

- Foreword
- 1 General
 - 1.1 General Requirements
 - 1.2 Application Test
 - 1.3 Test by frequency classification
 - 1.4 Sampling
 - 1.5 Pretreatment
 - 1.6 Test temperature
 - 1.9 Insulation thickness measurement

Foreword

GB/T 5023 "rated voltage 450/750V and below PVC insulated cables" is divided into seven parts.

- Part 1. General requirements;
- Part 2. Test methods;
- Part 3. Non-sheathed cables for fixed wiring;
- Part 4. Sheathed cables for fixed wiring;
- Part 5. Flexible cables (cords);
- Part 6. Lift cables and cables for flexible connection;
- Part 7. two-core or multi-core shielded and unshielded cable.

This section GB/T 5023 Part 2. This section identical with IEC 60227-2:2003 "rated voltage 450/750V and with Under PVC insulated cables - Part 2. Test methods "Version 2.1 (in English).

For ease of use, GB/T 5023 made this part of the following editorial changes.

- With a decimal point instead of a comma as the decimal point, "";
- Remove the IEC 60227-2:2003 Foreword;
- Deleted 2.3, Table 1 and 3.4 "flat non-sheathed cord," the relevant content.

This Part replaces GB 5023.2-1997 "rated voltage 450/750V or less PVC insulation - Part 2. Test side law".

This section of the main changes compared to GB 5023.2-1997 are as follows.

--- 1.9.1 The abolition of the "period of the insulated core sample is immersed in mercury until the insulation becomes flabby, out of the conductor can" approach;

--- Deleted 2.3, Table 1 and 3.4 "flat non-sheathed cord" related content ";

--- 3.1 scratch test made the following modifications.

1) 3.1.1 General modified to "This test does not apply to wire core nominal cross-sectional area greater than 2.5mm² multi-core flexible cables";

2) 3.1.2 Flexing test instrument has been described;

3) Table 1 cable cores 3.1.3 sample preparation increases core 2,3,4, 2,3,4 and provides core nominal cross-sectional area of 0.5mm² Cable hanging weight of 0.5kg, the pulley diameter of 60mm;

4) increase the 3.1.4 core carrier test;

5) increasing the core voltage test between 3.1.5;

6) increasing the inspection failure 3.1.6.

--- Increased 3.5 Flexing static test;

--- Increased by 3.6 elevator cable central pad core tensile strength test.

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. Jiangsu on the cable Group Co., Ltd., Changshu Cable Factory, Fujian Nanping Sun Cable Co., Ltd., Shanghai Panda Cable Co., Ltd., Jiang Su Shengan Cable Co., Ltd., Shanghai Old Port Cable Co., Ltd. Shanghai Ling Electronics.

1.1 General Requirements

Test Method GB/T 5023 as stipulated in the various parts are listed in this section and the following criteria.

GB/T 2951.11-2008 cable and the cable Common test methods for insulating and sheathing materials - Part 11. General test side Law --- --- Measurement of thickness and overall dimensions of mechanical tests (IEC 60811-1-1:2001, IDT) GB/T 5023.1-2008 rated voltage of 450/750V and below PVC insulated cables - Part 1. General requirements (IEC 60227-1:2007, IDT) GB/T 18380.12-2008 burning test and optical fiber cables under fire conditions - Part 12. single insulated wire and cable fire Vertical flame spread test (IEC

60332-1-2:2004, IDT)

1.2 Application Test

Various types of cable products by the applicable test standard (GB/T 5023.3, GB/T 5023.4, etc.) rules.

1.3 Test by frequency classification

According to GB/T 5023.1-2008 defined in 2.2, the test is defined as type tests (symbol T) and (or) sample test (symbol S) two kinds.

Symbol T and S for use in product standards (GB/T 5023.3, GB/T 5023.4, etc.) related to the tables.

1.4 Sampling

If the use of insulation or jacket embossed Braille signs, sampling should include this flag.

Unless otherwise specified, for multi-core cables, in addition to the test specified in 1.9, the sample should be taken no more than three cores (if separations, take a different color) experimenting.

1.5 Pretreatment

All tests should be in the insulation or jacketing storage be carried out after at least 16h.

1.6 Test temperature

Unless otherwise specified, the tests should be carried out at ambient temperature.

1.7 The test voltage Unless otherwise specified, the test voltage should be approximately sinusoidal AC 49Hz ~ 61Hz, the ratio is equal to the peak and rms Sang 2 ($1 \pm 7\%$).

Voltage are RMS.

Rub resistance and color inspection logo 1.8 Application of a group of water-soaked absorbent cotton or a cotton cloth and gently wipe the manufacturer's name or trademark, or insulated wire core color digital signs, a total wipe 10 times, the test results should meet the standard requirements.

1.9.1 Step

Insulation thickness shall GB/T 2951.11-2008 measured as specified in 8.1, should be separated from each section of cable at least 1m of three Sample.

GB/T 5023.2-2008/IEC 60227-2:2003