

ICS 59.090.30
CCS W 63

FZ

**TEXTILE INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

FZ/T 73037-2019

Replacing FZ/T 73037-2010

Knitted sports socks

针织运动袜

Issued on: May 2, 2019

Implemented on: November 1, 2019

**Issued by: Ministry of Industry and Information Technology of the
People's Republic of China**

Table of Contents

Foreword	1
1 Scope	1
2 Normative references	1
3 Terms and definitions	2
4 Product classification	2
5 Requirements	2
6 Test methods	5
7 Judgement rules	9
8 Instructions for use, packaging, transportation and storage	10

Foreword

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

This standard replaces FZ/T 73037-2010 "Knitted sports socks". Compared with FZ/T 73037-2010, the main technical changes are as follows:

- the scope of application has been revised (see Clause 1; Clause 1 of the 2010 edition);
- the introductory wording of the normative references has been adjusted (see Clause 2; Clause 2 of the 2010 edition);
- the term "hosiery size" has been added and part of the wording of the original term and definition of elastic compression ribbons has been revised (see Clause 3; Clause 3 of the 2010 edition);
- the product classification has been revised (see Clause 4; Clause 4 of the 2010 edition);
- bursting strength and antibacterial effect have been added to the content of the requirements (see 5.1; 5.1 of the 2010 edition), together with an illustration of "moving ankle socks" (see Figure 1);
- the sizes and tolerances have been adjusted (see 5.3.2; 5.3.1.2 of the 2010 edition), and "the width not assessed where the elastic compression ribbon is a mesh" has been changed to "the width not assessed where the elastic compression ribbon is an overall mesh";
- the grading of sizes has been deleted (see 5.3.2 of the 2010 edition);
- the longitudinal and transverse extension values have been revised and the assessment

indexes of the elastic compression ribbon adjusted (see 5.4.1; 5.4.1.1 of the 2010 edition);

- assessment indexes for bursting strength and antibacterial effect have been added, together with their test methods (see 5.4.2, 6.4.7 and 6.4.8);
- the former Tables 19 and 20 have been merged into the present Table 6, some indexes have been adjusted and the assessment of the difference between the two socks has been deleted (see 5.4.2; 5.4.1.2 and 5.4.2 of the 2010 edition);
- the sampling provisions for intrinsic quality have been revised (see 6.1.2; 6.1 of the 2010 edition);
- the test conditions for the longitudinal and transverse extension values have been detailed (see 6.3.2; 6.2.2 of the 2010 edition);
- the description of the test positions has been adjusted, adding the transverse extension test position at the width of the sock leg and at the width of the sock sole, and detailing the wording of the longitudinal extension test of the sock sole (see 6.4.1.2; 6.3.2.2 of the 2010 edition), with a diagram of the clamping position for that test (see Figure 4);
- the tensile force values for the longitudinal and transverse extension tests have been made explicit (see 6.4.1.3.1; 6.3.2.3.1 of the 2010 edition);
- the sampling position for the fibre content has been revised (see 6.4.2 and 8.1.1; 6.3.4 and 8.1.1 of the 2010 edition);
- part of the wording on the marking of sizes has been detailed (see 8.1.2; 8.1.2 of the 2010 edition), and an explanation of the marking of the antibacterial effect has been added (see 8.1.3).

This standard was proposed by the China National Textile and Apparel Council and is under the jurisdiction of the Knitted Goods Subcommittee of the National Technical Committee on Textiles of Standardization Administration of China (SAC/TC 209/SC 6).

The drafting organizations include Haining Naier Hosiery, Langsha Knitting, Tianfangbiao Testing and Certification, Xiamen ANTA Sporting Goods, Zhejiang Mengna Hosiery, Tread Holdings Group, Jilin Northeast Sock Industry Park Knitting, Zhejiang Dongfang Baifu Hosiery, Fuzhou Dihao Apparel, China Certification and Inspection Group Tianjin, Beijirong (Shanghai) Textile Technology, the Liaoyuan Product Quality Inspection Institute and Tianfangbiao (Shanghai) Testing Technology.

The previous edition of the standard replaced by this one is FZ/T 73037-2010.

1 Scope

This standard specifies the terms and definitions, the product classification, the requirements, the test methods and the judgement rules for knitted sports socks, together

with the instructions for use and the packaging, transportation and storage of the product.

It applies to the assessment of the quality of knitted sports socks. It does not apply to knitted sports socks with special requirements, nor to socks for infants and young children of 36 months and under.

Note: special requirements refers to sports socks for professional competition and the like.

2 Normative references

The following documents are indispensable for the application of this standard. For dated references, only the dated version applies; for undated references, the latest version - including all amendments - applies.

GB/T 250 Textiles - Tests for colour fastness - Grey scale for assessing change in colour · GB/T 2910 (all parts) Textiles - Quantitative chemical analysis · GB/T 2912.1 Textiles - Determination of formaldehyde - Part 1: Free and hydrolysed formaldehyde (water extraction method) · GB/T 3920 Textiles - Tests for colour fastness - Colour fastness to rubbing · GB/T 3921-2008 Textiles - Tests for colour fastness - Colour fastness to washing with soap or soap and soda · GB/T 3922 Textiles - Tests for colour fastness - Colour fastness to perspiration · GB/T 4856 Packaging of knitted and cotton goods · GB/T 5296.4 Instructions for use of products of consumer interest - Part 4: Textiles and apparel · GB/T 5713 Textiles - Tests for colour fastness - Colour fastness to water · GB/T 7573 Textiles - Determination of pH of aqueous extract · GB/T 8170 Rules of rounding off for numerical values and expression and judgement of limiting values · GB/T 16988 Determination of the content of mixtures of special animal fibre and sheep wool · GB/T 17592 Textiles - Determination of the banned azo colourants · GB 18401 National general safety technical code for textile products · GB/T 19976-2005 Textiles - Determination of bursting strength - Steel ball method · GB/T 29862 Textiles - Identification of fibre content · GB 31701 Safety technical code for infants and children textile products · FZ/T 01026 Textiles - Quantitative chemical analysis - Mixtures of multi-component fibres · FZ/T 01057 (all parts) Test method for identification of textile fibres · FZ/T 01095 Textiles - Testing method for spandex products fibre content · FZ/T 01101 Textiles - Determination of fibre content - Physical method · FZ/T 30003 Quantitative analysis method for flax and cotton blend products - Microscopic projection method · FZ/T 73023-2006 Antibacterial knitted goods · GSB 16-2159 Standard depth sample card for knitted products (1/12) · GSB 16-2610 Colour photographs of surface defects of socks

3 Terms and definitions

3.1 hosiery size - the length of the sole of the human foot expressed in centimetres; it is the basis for designing the length of the sock sole.

3.2 sports socks - socks having elastic compression ribbons in at least one of the two

positions, the arch of the foot and the ankle, which give protection during exercise.

3.3 elastic compression ribbons - obtained at the arch or at the ankle of the sock by adding rubber-covered yarn or other elastic fibres, so that when worn the part gives a distinct sense of grip, holding and protecting the foot during exercise.

3.4 moving ankle socks - sports socks with an elastic compression ribbon at the centre of the arch of the sole and with the sock opening at or below the ankle.

3.5 crew sports socks - sports socks with an elastic compression ribbon at the centre of the arch or at the ankle part of the leg, and with the sock opening below the calf.

3.6 kneehigh sports socks - sports socks with an elastic compression ribbon at the centre of the arch or at the ankle part of the leg, and with the sock opening below the knee.

3.7 overknee sports socks - sports socks with an elastic compression ribbon at the centre of the arch or at the ankle part of the leg, and with the sock opening above the knee.

4 Product classification

4.1 By style, the products are divided into moving ankle socks, crew sports socks, kneehigh sports socks and overknee sports socks.

4.2 By knitted structure, they are divided into full-terry knitted sports socks, half-terry knitted sports socks and non-terry knitted sports socks.

5 Requirements

5.1 Content of the requirements. The requirements are divided into appearance quality and intrinsic quality. Appearance quality covers the sizes and tolerances, the surface defects and the sewing requirements. Intrinsic quality covers the longitudinal extension value, the transverse extension value, the fibre content, the formaldehyde content, the pH value, the odour, the decomposable carcinogenic aromatic amine dyes, the bursting strength, the antibacterial effect, and the colour fastness to water, to perspiration, to rubbing and to washing with soap.

5.2.1 Quality grades. Taking the pair as the unit, the products are graded as first-grade products and qualified products.

5.2.2 Determination of the grade. Intrinsic quality is graded by batch and appearance quality by pair; the two are combined and the grade is determined by the lower of them.