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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 38035-2019

Footwear - Test method for slide fasteners - Attachment strength of end stops

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Foreword

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

The translation method used in this standard is equivalent to ISO 10750.2015 "Test Method for Footwear Zipper End Bond Strength".

The Chinese documents that have consistent correspondence with the normatively cited international documents in this standard are as follows.

---GB/T 2703-2017 Footwear Terminology (ISO.19952.2005, NEQ)

---GB/T 16825.1-2008 Inspection of static uniaxial testing machine Part 1.Tensile and (or) pressure testing machine force measuring system

Inspection and calibration (ISO 7500-1.2004, IDT)

---GB/T 22049-2019 Footwear and footwear components environmental regulation and test

standard environment (ISO 18454.2018, IDT)

This standard has made the following editorial changes.

---The ISO.19952 cited in Chapter 3 is added to the normative references.

Please note that certain contents of this document may involve patents. The issuing agency of this document is not responsible for identifying these patents.

This standard was proposed by the China National Light Industry Council.

This standard is under the jurisdiction of the National Footwear Standardization Technical Committee (SAC/TC305).

Drafting organizations of this standard. China Leather and Footwear Research Institute Co., Ltd., Dalian Product Quality Inspection and Testing Research Institute Co., Ltd., Jihua San

1 Scope

This standard specifies the test method for the combined strength of the top stop and bottom stop of a zipper.

This standard applies to all kinds of zippers for shoes.

2 Normative references

The following documents are indispensable for the application of this document. For dated reference documents, only the dated version applies to this article

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

ISO 7500-1 Calibration and Inspection of Static Uniaxial Testing Machines for Metallic Materials Part 1.Tensile and/or Compression Testing Machines

Calibration and inspection of force measurement system

ISO 18454 Footwear, footwear and footwear components, environmental regulation and test standard environment

ISO.19952 Footwear Terminology

3 Terms and definitions

The following terms and definitions defined in ISO.19952 apply to this document.

3.1

zipper

The connecting piece that fixes two pieces of flexible material is composed of interlockable

elements attached to the opposite edges of the two cloth belts and movable across the elements.

Composed of a movable slider, when the slider moves in one direction, the chain teeth on the two cloth belts can be meshed with each other. When the slider moves in the opposite direction, the chain teeth can be separated.

3.2

Cloth tape

Textile belt used to carry fastener elements and other zipper components.

3.3

Pull head

When sliding on the chain, the chain teeth are meshed or pulled apart.

3.4

Pull tab

Plastic or metal sheet attached to the slider for easy pulling.

3.5

Chain teeth

They can be engaged with each other and are unique parts of zippers or plastic continuous spiral chains.

3.6

The start or end component of the tooth chain prevents the slider from being detached from the tooth chain belt.

3.7

Tooth chain belt

The textile cloth belt fixed with chain teeth can be connected with another cloth belt through the chain teeth.

4.1 General

This standard describes the following test methods.

4.2 Method 1-Top-stop binding force

The slider of the closed zipper is clamped in one clamp of the tensile testing machine, and the bottom stop of the zipper is clamped in the other clamp. Then move the points

From the clamp, measure the force required for the top stop to detach from the zipper.

4.3 Method 2-Bottom stop binding strength (pull head-tooth chain method)

The slider of the open zipper is clamped in one clamp of the tensile testing machine, and the two free ends of the tooth chain are clamped in the other clamp.

Then move the separating clamp to measure the force required for the bottom stop to break away from the zipper.

4.4 Method 3-Bottom stop binding strength (tooth chain belt-tooth chain belt method)

Fix the free end of the tooth chain of the open zipper on the two clamps of the tensile testing machine. Then move the separation clamp to measure the bottom stop

The force required to separate the zipper.

5.1.1 Clamp, separation speed (100 +/- 10) mm/min.

5.1.2 The measuring force range is up to 1kN, and the accuracy is greater than 2%, which meets the secondary requirements in ISO 7500-1.

5.1.3 A device that records the maximum tensile force during the test or the tensile force during the entire test.

5.2 For methods 1 and 2, the small hook is suitable for the upper clamp of the tensile testing machine (5.1). The thickness of the hook should be small enough to pass through the zipper under test

Hole in the film. The hook can be made of steel wire with a diameter of (1.6+/-0.2) mm.

6 Test sample

Each test requires 3 zippers. Before the test, adjust the sample for 24h according to ISO 18454, and conduct the test in the same environment.

7 steps

There are 3 test methods available.

7.1 Method 1-Top-stop binding force

7.1.1 Fix the hook (5.2) on the upper clamp of the tensile testing machine (5.1), and clear the force measurement system (5.1.2).