SLOVENSKI STANDARD
SIST EN ISO 22776:2005

01-april-2005

Obutev - Preskusne metode za dodatke: sprijemna zapenjala - Strižna trdnost pred ponavljajoḷ im se zapenjanjem in po njem (ISO 22776:2004)

Footwear - Test methods for accessories: Touch and close fasteners - Shear strength before and after repeated closing (ISO 22776:2004)

Schuhe - Prüfverfahren für Zubehör: Haftverschlüsse - Scherfestigkeit vor und nach wiederholtem Schließen (ISO 22776:2004)

Chaussures - Méthodes d'essai pour accessoires : fermetures auto-agrippantes - Résistance a la traction avant et apres un usage répété (ISO 22776:2004)

Ta slovenski standard je istoveten z: **EN ISO 22776:2004**

ICS:

61.060	Obuvala	Footwear

SIST EN ISO 22776:2005 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 22776

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ICS 61.060

English version

Footwear - Test methods for accessories: Touch and close fasteners - Shear strength before and after repeated closing (ISO 22776:2004)

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This European Standard was approved by CEN on 23 August 2004.

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Contents

Foreword

This document (EN ISO 22776:2004) has been prepared by Technical Committee CEN/TC 309 "Footwear", the secretariat of which is held by AENOR, in collaboration with Technical Committee ISO/TC 216 "Footwear".

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by June 2005, and conflicting national standards shall be withdrawn at the latest by June 2005.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

1 Scope

This document specifies a test method for determining the longitudinal shear strength of touch and close fasteners before and after repeated use.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 12222, *Footwear - Standard atmospheres for conditioning and testing of footwear and components for footwear*

EN 12240, *Touch and close fasteners — Determination of the overall and effective widths of tapes and the effective width of a closure*

EN ISO 7500-1, *Metallic materials — Verification of static uniaxial testing machines — Part 1: Tension/compression testing machines — Verification and calibration of the force-measuring system (ISO 7500-1:2004)*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1
longitudinal shear strength
maximum force per unit effective area required to separate the two tapes forming the specified closure in a shearing action under the specified conditions of test

3.2
effective width
width of the pile at 90° to the length of the tape and which does not include the selvedge

3.3
effective area of a closure
product of the effective width of a closure and the length of a closure

4 Principle

4.1 Shear strength

Mated component tapes of a touch and close fastener are separated at a constant rate along the closure in a direction parallel to the length of the tapes forming the closure and in the plane of the closure.

4.2 Shear strength after repeated opening and closing

A touch and close fastener is repeatedly opened and closed a standard number of times by a machine. The shear strength is then measured by repeating the test described in 4.1.

5 Apparatus

5.1 A **tensile testing machine** complying with the requirements of EN ISO 7500-1 to an accuracy corresponding to class 2, and with the following:

5.1.1 A jaw separation rate of 100 mm/min ± 10 mm/min.

5.1.2 The means of producing a continuous record of force throughout the test.

5.2 A **roller device** with a roller (see Figure 1) of diameter 100 mm ± 5 mm capable of applying a force of 1,0 N ± 0,1 N per millimetre width of the test specimen. This is to close the fastener under a standard pressure.

5.3 **Fork** with a handle (see Figure 2) which engages the roller (5.2) and allows it to be moved without any extra down force being applied (see Figure 3).

Dimensions in mm

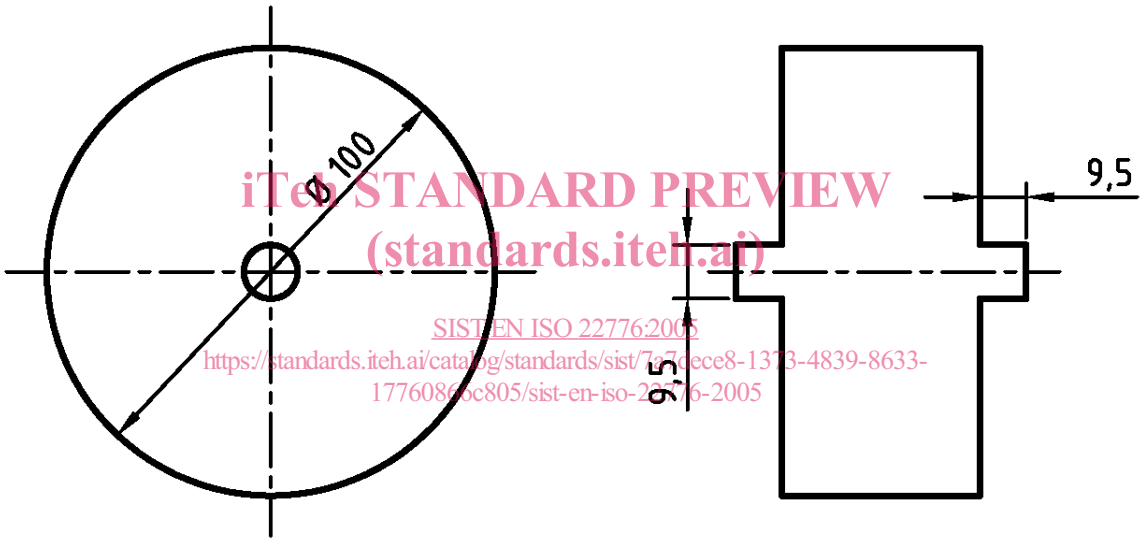
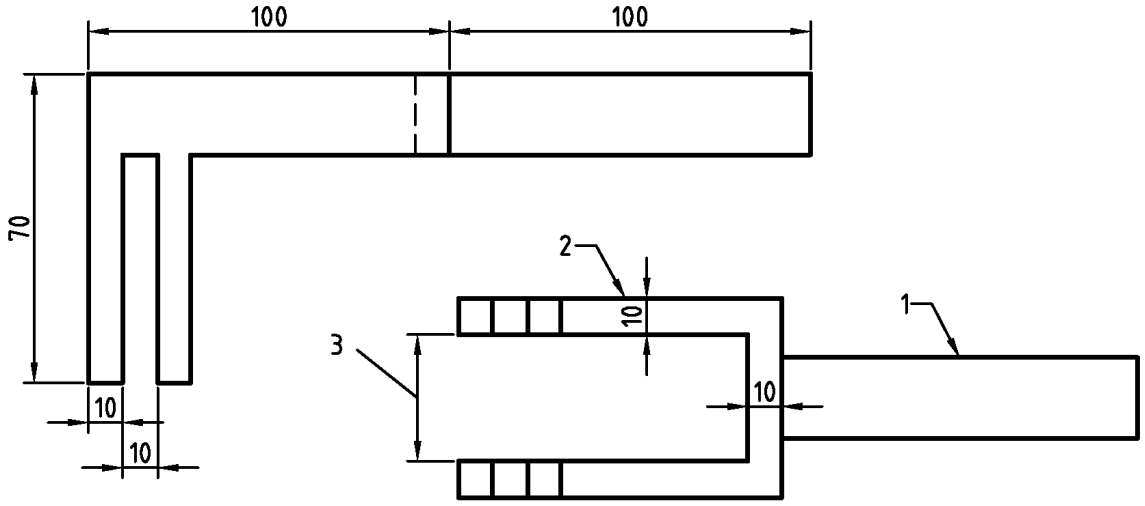


Figure 1 — Roller

Dimensions in mm



Key

1 Handle
2 Forks
3 Space between the forks to be 2 mm greater than the roller width

Figure 2 — Fork with a handle

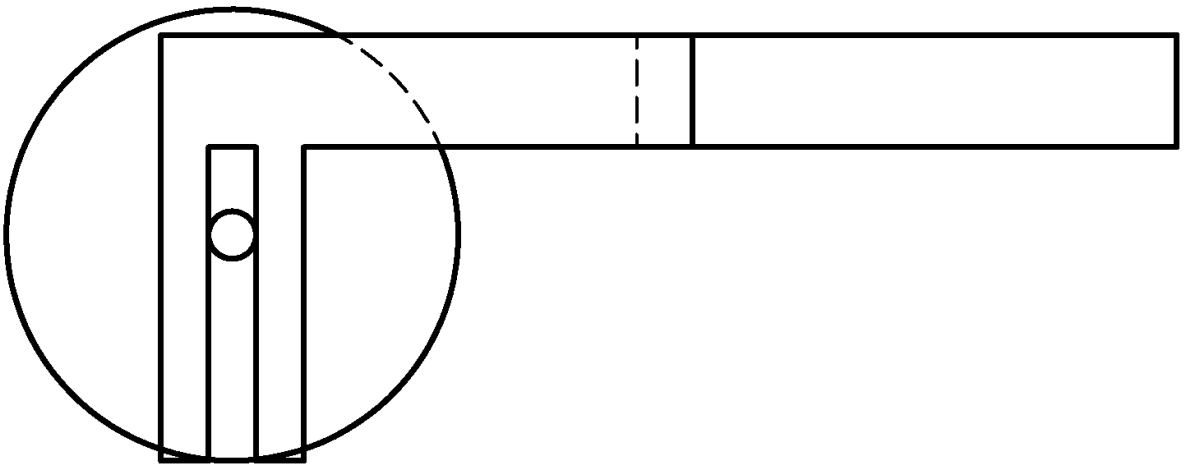


Figure 3 — Rolling mechanism for touch and close fasteners

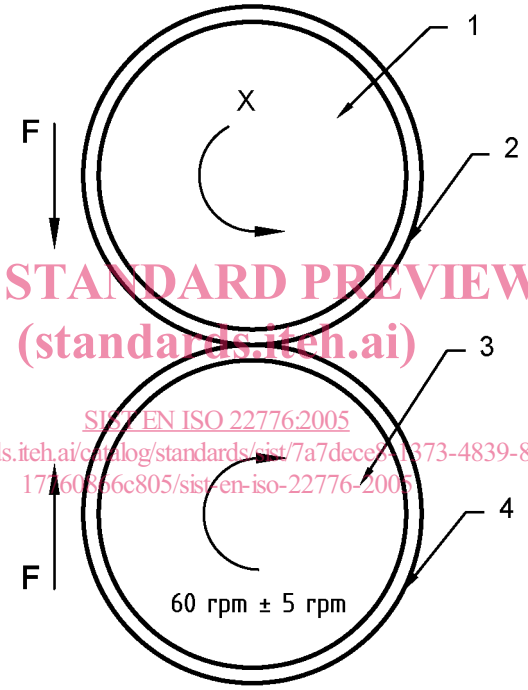
5.4 A **touch and close cycling machine** (see Figure 4) with:

5.4.1 Two circular drums of minimum width 70 mm, one of diameter 160,0 mm ± 0,5 mm and the other diameter 162,5 mm ± 0,5 mm. Each drum has a single slot of length 55 mm ± 2 mm across its width to hold the free ends of the specimen fastener. The drums are mounted next to each other with their axes parallel.

5.4.2 A means of rotating the smaller of the two drums at a rate of 60 rev/min ± 5 rev/min with the direction of rotation being reversed every 30 s ± 5 s. The larger of the two drums rotates freely and is driven by physical contact with the smaller drum via the test specimen.

5.4.3 A means of applying a force of 1,0 N ± 0,1 N between the two drums for every 1 mm width of the test specimen.

5.4.4 A method of counting the total number of rotations of the smaller of the two drums regardless of the direction of rotation.



Key

1 Idling drum (diameter 162.5 mm ± 0,5 mm)
2 Hook tape
3 Driven drum (diameter 160 mm ± 0,5 mm)
4 Loop tape
F Force between drums = 1 N × for every millimetre of effective width of fastener
X Drum

Figure 4 — Touch and close fastener cycling machine