SLOVENSKI STANDARD
oSIST prEN ISO 20875:2016

01-april-2016

Obutev - Preskusne metode za zunanje podplate - Ugotavljanje pretržne trdnosti in odpornosti proti razslojevanju (ISO/DIS 20875:2016)

Footwear -Test methods for outsoles - Determination of split tear strength and delamination resistance (ISO/DIS 20875:2016)

Schuhe - Prüfverfahren für Laufsohlen - Bestimmung von Spaltreißfestigkeit und Schichtentrennwiderstand (ISO/DIS 20875:2016)

Chaussures - Méthodes d'essai applicables aux semelles d'usure - Détermination de la force de déchirure sur refente et résistance au délaminage (ISO/DIS 20875:2016)

Ta slovenski standard je istoveten z: **prEN ISO 20875**

ICS:

61.060	Obuvala	Footwear

oSIST prEN ISO 20875:2016 **en**

DRAFT INTERNATIONAL STANDARD

ISO/DIS 20875

ISO/TC **216**

Secretariat: **AENOR**

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Footwear — Test methods for outsoles — Determination of split tear strength and delamination resistance

Chaussures — Méthodes d'essai applicables aux semelles d'usure — Détermination de la force de déchirure sur refente et résistance au délaminage

ICS: 61.060

ISO/CEN PARALLEL PROCESSING

This draft has been developed within the European Committee for Standardization (CEN), and processed under the **CEN lead** mode of collaboration as defined in the Vienna Agreement.

This draft is hereby submitted to the ISO member bodies and to the CEN member bodies for a parallel five month enquiry.

Should this draft be accepted, a final draft, established on the basis of comments received, will be submitted to a parallel two-month approval vote in ISO and formal vote in CEN.

To expedite distribution, this document is circulated as received from the committee secretariat. ISO Central Secretariat work of editing and text composition will be undertaken at publication stage.

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Foreword

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International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 20875 was prepared by Technical Committee ISO/TC 216, *Footwear*, Subcommittee SC , and by Technical Committee CEN/TC 309, *Footwear* in collaboration.

This second/third/... edition cancels and replaces the first/second/... edition (), [clause(s) / subclause(s) / table(s) / figure(s) / annex(es)] of which [has / have] been technically revised.

Footwear — Test methods for outsoles — Determination of split tear strength and delamination resistance

1 Scope

This international standard specifies a method for the determination of the split tear strength and delamination resistance for outsoles.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 7500-1 Metallic materials. Tensile testing. Part 2: Verification of the force measuring system of the tensile testing machines.

ISO 18454 Footwear. Standard atmospheres for conditioning and testing of footwear and components for footwear.

ISO 17709 Footwear -- Sampling location, preparation and duration of conditioning of samples and test pieces.

3 Terms and definitions

For the purposes of this International Standard, the following terms and definitions apply:

3.1
delamination resistance
the force, required to propagate delamination of the adhesive layer or joint interface if a multilayer outsoles is composed of an adhesive layer, divided by the width of the test pieces

3.2
split tear strength
the force required to propagate a cut in a test piece by tearing

4 Apparatus and material

The following apparatus and material shall be used:

4.1 Tensile-testing machine

The tensile-testing machine shall comply with the requirements of ISO 7500-1, to an accuracy corresponding to grade B, with a constant rate of traverse of 100 mm/min ± 10 mm/min. A low-inertia machine having autographic force recording facilities is essential.

4.2 A splitting jig and knife to use for making the initial cuts (see figure 1).

5 Sampling and conditioning

Test specimens shall be strips of 75 mm minimum length and 25 mm ± 0,2 mm width.

The test pieces to be tested shall be taken in accordance with ISO 17709. All test pieces shall be conditioned in accordance with ISO 18454 before testing, for a minimum of 24 h.

Minimum three pieces are necessary.

6 Test methods

6.1. Delamination resistance

In cases of multilayer outsoles separate the layers of the sole for a length of 10 mm, inserting a heated knife in the adhesive layer.

Fold back the two tongues at one end of the test piece and insert and clamp one in each jaw of the machine. Start the machine so that the jaws separate at 100 mm/min, and record a trace of the force as the test continues.

6.2. Split tear strength

Using the splitting jig and knife (see 4.2), split one end of each test piece half-way between the top and bottom surfaces for a distance of approximately 30 mm.

Fold back the two tongues at one end of the test piece and insert and clamp one in each jaw of the machine. Start the machine so that the jaws separate at 100 mm/min, and record a trace of the force as the test continues.

7 Expression of results

7.1. The delamination resistance D_s expressed in newton per millimetre of width is given by the formula:

$$D_s = F/d \quad (1)$$

where

F is the average force in newton

d is the width of the test piece in millimetres

The results will be the average of the three values obtained.

7.2. The split tear strength ST_s expressed in newton per millimetre of width is given by the formula:

$$ST_s = F/d \quad (2)$$

where

F is the median force in newton

d is the width of the test piece in millimetres

The results will be the median of the three values obtained.

8 Test report

The test report shall include the following information:

a) results, expressed in accordance with clause 7;

b) full identification of the samples tested including styles codes, colours, nature, etc.;

c) reference to this method of test;

d) date of testing;

e) details of any deviation from this standard test procedure.

f) standard atmospheric conditions observed during the test

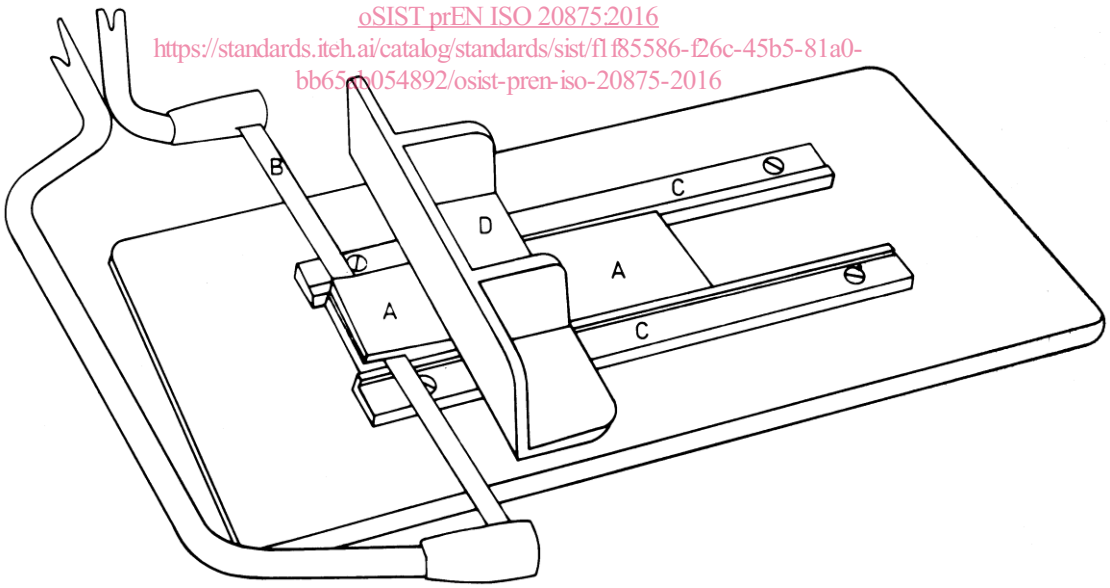

Figure 1 — Example of knife and splitting jig

Key

A test piece

B straight-edged cutting blade

C guide rails for blade B to produce the correct depth of cut

D hand held guard which keeps the test piece stationary during cutting

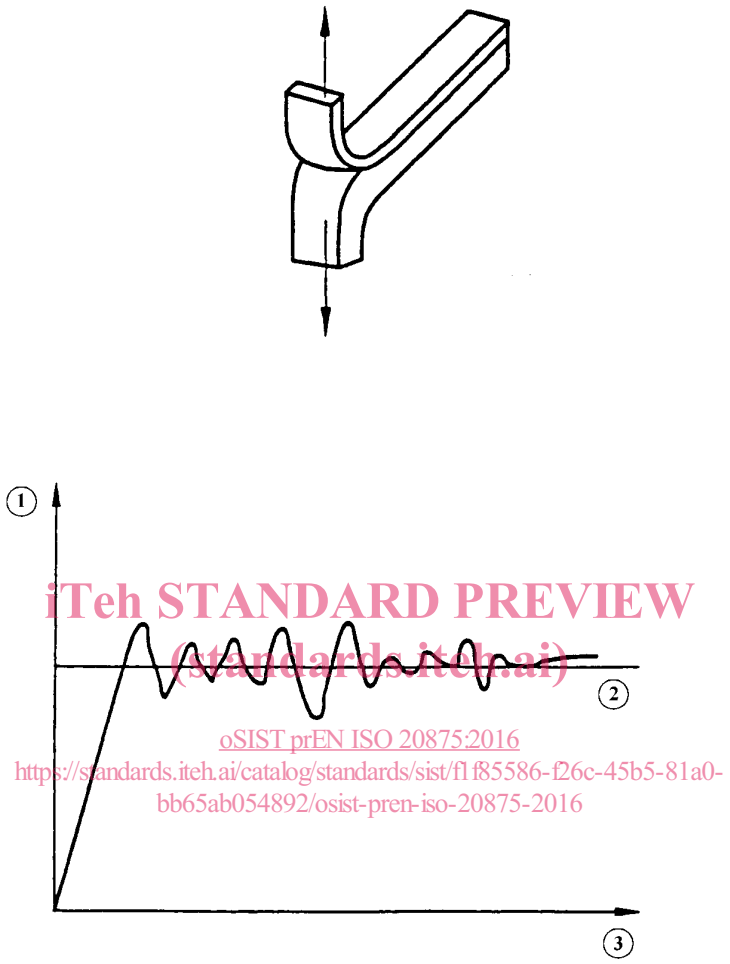

Figure 2 — Example of diagram force/deformation

Key

1 Delamination force, in N

2 Average

3 Deformation