SLOVENSKI STANDARD
oSIST prEN ISO 20873:2016

01-april-2016

Obutev - Preskusne metode za zunanje podplate - Dimenzijska stabilnost (ISO/DIS 20873:2016)

Footwear - Test methods for outsoles - Dimensional stability (ISO/DIS 20873: 2016)

Schuhe - Prüfverfahren für Laufsohlen - Maßhaltigkeit (ISO/DIS 20873:2016)

Chaussures - Méthodes d'essai applicables aux semelles d'usure - Stabilité dimensionnelle (ISO/DIS 20873:2016)

Ta slovenski standard je istoveten z: prEN ISO 20873

ICS:

61.060 Obuvala Footwear

oSIST prEN ISO 20873:2016 **en**

DRAFT INTERNATIONAL STANDARD

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ISO/TC **216**

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Footwear — Test methods for outsoles — Dimensional stability

Chaussures — Méthodes d'essai applicables aux semelles d'usure — Stabilité dimensionnelle

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

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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 20873 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 — Dimensional stability

1 Scope

This international standard specifies a method for determining the linear shrinkage after heating of test specimens prepared from 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 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.

ISO 4648 Rubber, vulcanized or thermoplastic -- Determination of dimensions of test pieces and products for test purposes.

3 Definitions

For the purposes of this International Standard, the following definition applies:

3.1
dimensional stability
the reduction in the distance between two reference points on a test piece before and after heating in air under specified conditions. This shrinkage is expressed as percentage of the initial distance

4 Apparatus and material

The following apparatus and material shall be used:

4.1 Steel rule, marked in millimetres.

4.2 Templates and scalpel or other sharp knife, to cut two reference marks in the test specimen either 100 mm or 50 mm apart.

4.3 Oven, for heating the test specimens to 70 °C ± 2 °C and thermostatically controlled so that they are kept within 2°C of the required temperature during the heating period.

4.4 Device capable of measuring the distance between two cuts, 50 mm apart or 100 mm apart, on a flat surface, to an accuracy of ± 0,2 mm.

This may consist of either:

a) a steel rule, marked in millimetres as in 4.1, together with a x5 magnifying glass;

or

b) a travelling microscope or similar optical device with scale.

4.5 Thickness gauge

Thickness gauge, standing on a firm base and loaded with a dead weight such that the presser foot applies a pressure of 10 kPa ± 3 kPa. The gauge has a presser foot which is flat, circular and 10 mm ± 0,1 mm in diameter, as defined in ISO 4648.

The gauge has scale division of 0,01 mm.

5 Sampling

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

The test samples with the full thickness of the outsoles shall be tested.

Minimum three test pieces are necessary.

6 Test methods

6.1 Test specimen piece

Using a scalpel or other sharp knife (4.2) and a steel rule (4.1), cut the test specimens to the dimensions and tolerances given in figure 1.

Make two parallel reference cuts on the external surface not more than 0,5 mm deep across the full width of the test specimen on each side of it, 100 mm ± 5 mm apart for the larger test specimen and 50 mm ± 5 mm apart for the smaller test specimen.

6.2 Measurement before heat treatment (L_0)

Measure to within ± 0,2 mm the distance between the reference cuts along the centreline.

6.3 Heat treatment

Place the test specimens horizontally (supported in such a way as to ensure adequate air ventilation on all sides) in the oven (4.3) for 24 h ± 0,5 h at the temperature of 70 °C ± 2 °C.

6.4 Measurement after heat treatment (*L*)

Remove the test specimen from the oven at the end of the period of heat treatment. Keep the test specimens for at least 30 min in a standard atmosphere. If the test specimens are bowed, hold them flat for measurement.

If the measuring cuts have widened, take the point of the measurement as the centre of the cut. Measure to within ± 0,2 mm the distance between these cuts along centreline as the described using an appropriate device.

7 Expression of results

For each test specimen, calculate the shrinkage of the distance between the reference cuts produced by the heat treatment and express this as a percentage of the original distance.

The worst of the three values will be the result.

Shrinkage *S,* in %, is to be calculated using the formula

$$S = \frac{L - L_0}{L_0} x\ 100$$

where

L_0 is the original distance between the reference cuts in millimetres, as recorded according to 6.2.

L is the distance between the reference cuts after heat treatment, in millimetres, as recorded according to 6.4.

8 Test report

The test report shall include the following information:

a) results, expressed in accordance with clause 7;

b) dimensions (including thickness) of the test specimen;

c) full description of the samples tested including commercial styles, codes, colours, nature, etc.;

d) reference to this method of test;

e) date of testing;

f) any deviations from this test method;

g) the age of the sample.

h) standard atmospheric conditions observed during the test

Dimensions in mm

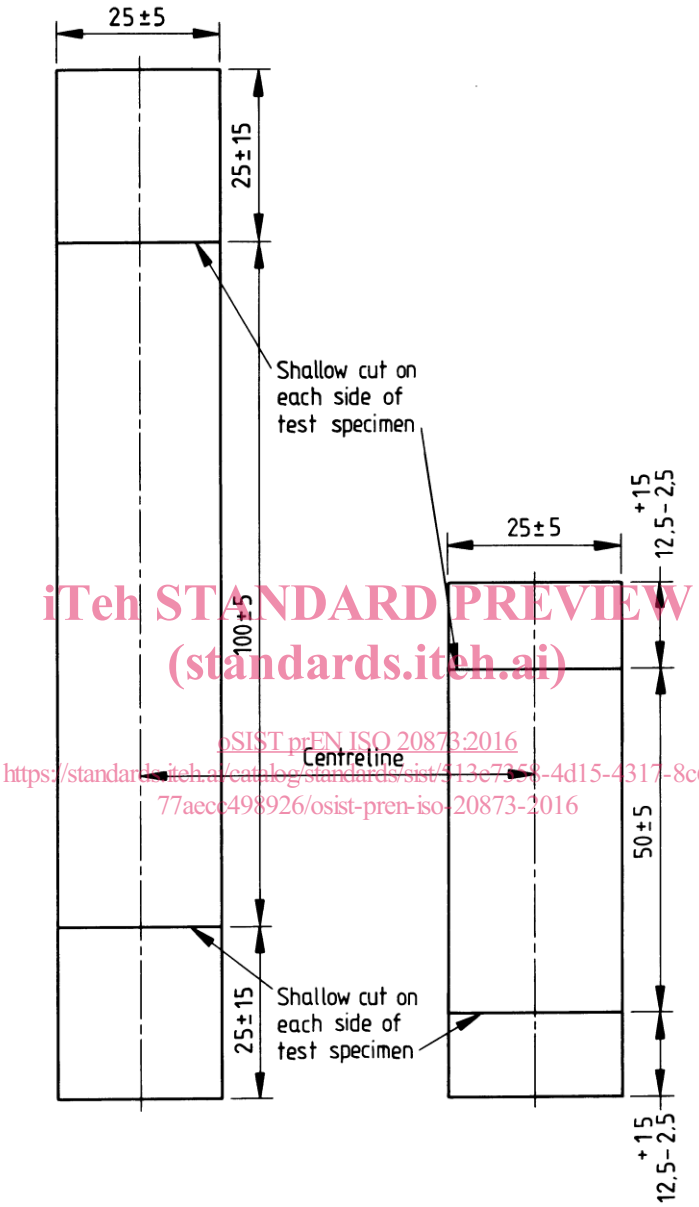

Figure 1 — Long and short test specimens for shrinkage, showing dimensions and positions of reference cuts