SLOVENSKI STANDARD
SIST EN 13073:2001

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Footwear - Test methods for whole shoe - Water resistance

Footwear - Test methods for whole shoe - Water resistance

Schuhe - Prüfverfahren für den ganzen Schuh - Wasserbeständigkeit

Chaussures - Méthodes d'essai s'appliquant a la chaussure entiere - Résistance a l'eau

Ta slovenski standard je istoveten z: **EN 13073:2001**

ICS:

61.060 Obuvala Footwear

SIST EN 13073:2001 **en**

EUROPEAN STANDARD
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EN 13073

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ICS 61.060

English version

Footwear - Test methods for whole shoe - Water resistance

Chaussures - Méthodes d'essai s'appliquant à la chaussure entière - Résistance à l'eau

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

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Contents

Foreword

This European Standard has been prepared by Technical Committee CEN/TC 309 "Footwear", the secretariat of which is held by AENOR.

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of an identical text or by endorsement, at the latest by July 2001, and conflicting national standards shall be withdrawn at the latest by July 2001.

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

1 Scope

This standard specifies a test method for the determination of the water resistance of footwear, irrespective of the material.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

prEN 13400:2001, *Footwear - Sampling location of components for footwear.*

3 Terms and definitions

For the purposes of this standard the following definition applies:

3.1
water resistance
the resistance of a whole shoe to water ingress when worn by a test subject who walks a measured number of paces over a surface flooded with water to a specified depth

4 Apparatus and material

The following apparatus and material shall be used:

4.1 A tester, so that the footwear fits the tester reasonably comfortably.

4.2 A horizontal watertight trough, having the following essential features (see also figure 1)

4.2.1 a moveable platform near each end, high enough to enable the tester to step up and turn around above the water level

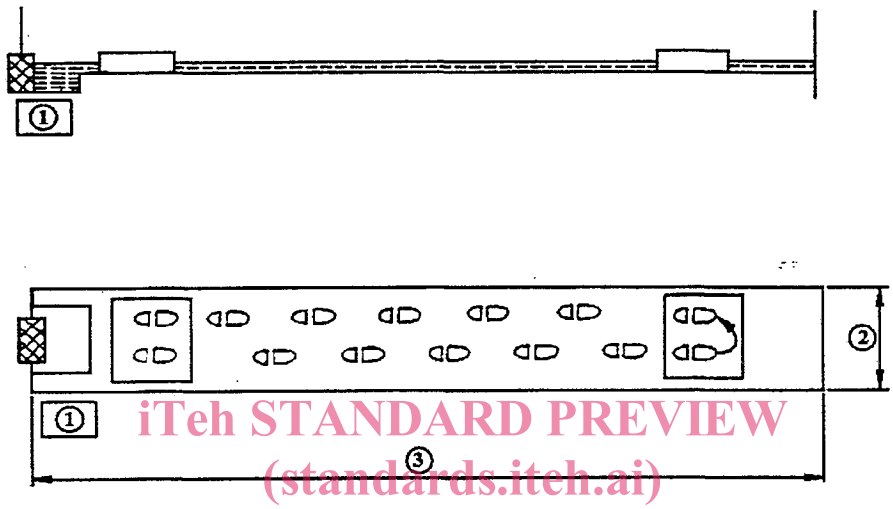
4.2.2 sufficient length to allow the tester to take 10 normal paces in the water between the platforms

4.2.3 width of approximately 0,6 m

4.2.4 a plug to enable to water to be drained away.

NOTE It is obviously desirable for the trough to have a piped water supply so that it can readily be filled to the appropriate depth.

Dimensions in meters



Key

1	Plug
2	0,6 approx.
3	9 to 10 approx.

Figure 1 – Trough

5 Sampling

The sample is a complete item of footwear.

The minimum number of samples and test pieces is: 3 samples, each of three sizes, largest smallest and middle size.

6 Test method

6.1 Principle

A pair of footwear is worn whilst a measured number of paces is walked over a surface flooded with water to a measured depth. The extent of water entry is determined by inspection.

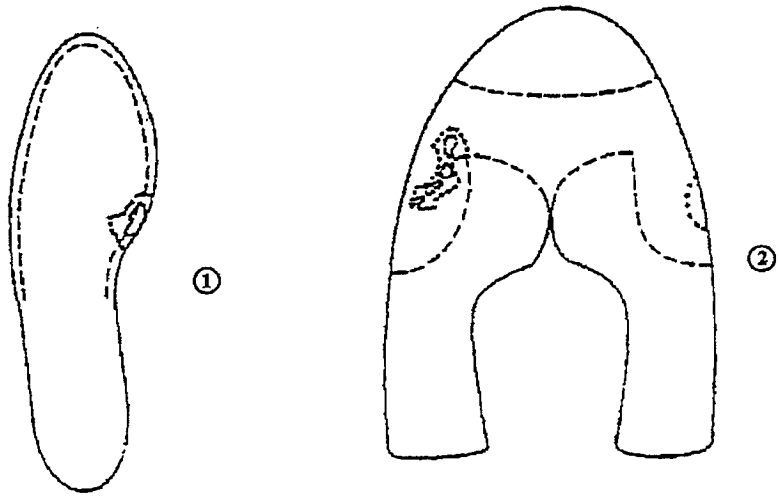
6.2 Procedure

With the trough (see 4.2) empty of water, position the turning platforms (see 4.2.1) so that the tester takes 11 paces walking from one to the other with a normal length of stride (i.e. so that each foot is placed on the floor of the trough five times). Determine point A (see figure 1 in prEN 13400:2001) in accordance with the method described in prEN 13400:2001 and mark the footwear 5 mm above the feather line. Fill trough to a water level 5 mm above the feather line, or 25 mm total depth of water, whichever is the lower.

NOTE The feather line is the line of a shoe where the upper meets the bottom, the part of the bottom involved being the welt, rand, or sole, depending on the method of shoe construction.

Ensure that the footwear is thoroughly dry. Put on the dry footwear over normal hose using a legging or guard to cover the topline and stand on one of the platforms. Walk 100 trough lengths in the water using the platforms when turning. Take great care to make sure that no water is splashed over the topline of the footwear. To avoid this splashing, walk at a slower pace than normal, if necessary, but preferably not slower than one pace per second.

After 100 trough lengths step out of the trough, remove the footwear carefully and examine the inside visually and by touch for signs of water penetration. If any penetration has occurred, record its position and extent on diagrams (as indicated in figure 2) for each boot or shoe.



Key

1 insole
2 upper

---------- Seams in upper and insole

..... First areas of penetration

_____ Extended areas of penetration

Figure 2 – Suitable form of diagram for a shoe, with an example of recorded penetration added

If penetration has not occurred, repeat the series of 100 trough lengths until water penetration is detected. Then record its position and extent on diagrams (as indicated in figure 2).

If after 500 trough lengths no water penetration appears, stop the test.

Repeat the test with the other 2 pairs of footwear.

7 Expression of results

The results of this test consist of two values:

- number of trough lengths

- total area of water penetration, expressed in cm^2.