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Footwear — Sizing — Measurement of last dimensions

Chaussures — Pointures — Mesurage des dimensions de la forme

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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 137, *Footwear sizing designations and marking systems*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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Introduction

A shoe last is the form on which a shoe is constructed. The size and shape of the last is vital and contributes to the size and shape of the finished product. The shoe last determines the toe shape and heel height as well as the curvature of the shoe. Good fit is a key factor in a customer's choice of footwear. The footwear design and manufacturing processes also contributes to a well-constructed shoe. A standard method of measuring a last will guide the industry on correct shoe sizing based on the last dimensions and will reduce discrepancies and disputes.

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Footwear — Sizing — Measurement of last dimensions

1 Scope

This document specifies methods to measure the basic last dimensions. Last dimensions can be measured physically using a real last or virtually on a digital 3D model using suitable software to make equivalent measurements.

These test methods are applicable to all types of lasts.

NOTE The specified last dimensions do not necessarily correspond with anatomical foot positions and foot dimensions.

2 Normative References

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

ISO/TS 19407:2015, *Footwear — Sizing — Conversion of sizing systems*

ISO/TS 19408:2015, *Footwear — Sizing — Vocabulary and terminology*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO/TS 19408:2015 and the following apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

3.1
geodesic
line on a curved surface such that at all points on the line, the normal to the line is also the normal to the curved surface (identical to the normal curvature)

3.2
continuous geodesic
geodesic (3.1) that returns to its starting point and then continues on the same path as for the first circuit when passing around the surface of an object

3.3
convexity
maximum of last bottom curvature

4 Principle

The different dimensions of the last are measured physically at the real last or virtually at the digital last. The measurements are taken at the described places at the last. Find the point, distance or girth at the last and measure the dimension using the described method.

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