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Footwear — Standard atmospheres for conditioning and testing of footwear and components for footwear

Chaussures — Atmosphères normales de conditionnement et d'essai des chaussures et de leurs éléments constitutifs

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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 3.

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 International Standard may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

International Standard ISO 18454 was prepared by the European Committee for Standardization (as EN 12222:1997) and was adopted, under a special “fast-track procedure” by Technical Committee ISO/TC 216, *Footwear*, in parallel with its approval by the ISO member bodies.

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of an identical text or by endorsement, at the latest by December 1997, and conflicting national standards shall be withdrawn at the latest by December 1997.

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.

Introduction

This European Standard has been prepared based on the following ISO standards referred to atmospheres for conditioning and testing:

ISO 554 Standard atmospheres for conditioning and/or testing - Specifications

ISO 558 Conditioning and testing - Standard atmospheres - Definitions

The aim of this European Standard is to harmonize the specifications for the ambient conditions in which test methods for footwear and components for footwear will be carried out.

1 Scope

This European Standard specifies out the general conditioning and testing atmospheres for the evaluation of footwear and footwear component properties.

This European Standard defines two standard atmospheres for conditioning and testing of footwear and footwear components.

2 Definitions

For the purpose of this standard the following definitions apply:

2.1 atmosphere: Ambient conditions defined by one or more of the parameters:

- temperature
- relative humidity (RH)

2.2 conditioning: This term refers to the operation as a whole designed to bring a sample or test specimen, before testing, into a specified condition in relation to temperature and humidity, by keeping it for a given period of time in the conditioning atmosphere.

2.3 conditioning atmosphere: The atmosphere in which a sample or test specimen is kept before being subjected to test. It is characterized by specified values for one or more of the parameters temperature, relative humidity which are kept within the prescribed tolerances for a given period of time.

> **NOTE 1:** The conditioning can be done in the laboratory, in a special enclosure termed "the conditioning chamber" or in the test chamber.

NOTE 2: The chosen values and period of time depend on the nature of the sample or test specimen to be tested.

2.4 test atmosphere: The atmosphere to which a sample or test specimen is exposed throughout the test. It is characterized by specified values for one or more of the parameters temperature, relative humidity and pressure,, which are kept within the prescribed tolerances.

NOTE : The test may be carried out in the laboratory, in a special chamber termed "the test chamber", or in the conditioning chamber, the choice depending on the nature of the test specimen and on the test itself.

3 General requirements

The standard atmospheres and tolerances for conditioning and testing of footwear and footwear component properties are given in clause 4 and clause 5 respectively.

When the conditioning is carried out at 23 °C and 50 % RH it will not be necessary to indicate this in the test report. In any other case, the ambient conditions must be explicitly stated in the test report.

4 Standard atmospheres

Table 1: Standard atmospheres

Designation	Temperature °C	Relative humidity %	Remarks
23/50	23	50	Recommended atmosphere
20/65	20	65	Used in certain fields of application

5 Tolerances

Table 2: Tolerances [1)]

Tolerances	Temperature °C	Relative Humidity %
Ordinary (normal) tolerances	± 2	± 5 [2), 3)]

1) These tolerances should also be used for other atmospheres if it is specified in the relevant test method

2) The resulting limits of relative humidity, with ordinary tolerances, therefore:

45 % to 55 % and 60 % to 70 % respectively.

3) The uncertainty shall not exceed ± 3 %

6 Conditioning

The conditioning atmospheres shall be in accordance with the standard atmospheres (see clause 4).

The period of conditioning shall be stated in the relevant specifications for the component.

7 Testing

Unless otherwise specified in the relevant European standard, the test specimens shall be tested in the same atmosphere as that in which they have been conditioned.

In all cases, the test shall be carried out immediately after removal of the test specimen from the conditioning chamber.

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