

Environmental testing -- Part 2-2: Tests - Test B: Dry heat

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 60068-2-2:2007 sisaldab Euroopa standardi EN 60068-2-2:2007 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 23.11.2007 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 60068-2-2:2007 consists of the English text of the European standard EN 60068-2-2:2007.</p> <p>This document is endorsed on 23.11.2007 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p>Käsitlusala: This standard deals with dry heat tests applicable both to heat-dissipating and non heatdissipating specimens. For non heat-dissipating specimens, Tests Bb and Bd do not deviate essentially from earlier issues. The object of the dry heat test is limited to the determination of the ability of components, equipment or other articles to be used, transported or stored at high temperature. These dry heat tests do not enable the ability of specimens to withstand or operate during the temperature variations to be assessed. In this case, it would be necessary to use IEC 60068-2-14 Test N: Change of temperature.</p>	<p>Scope: This standard deals with dry heat tests applicable both to heat-dissipating and non heatdissipating specimens. For non heat-dissipating specimens, Tests Bb and Bd do not deviate essentially from earlier issues. The object of the dry heat test is limited to the determination of the ability of components, equipment or other articles to be used, transported or stored at high temperature. These dry heat tests do not enable the ability of specimens to withstand or operate during the temperature variations to be assessed. In this case, it would be necessary to use IEC 60068-2-14 Test N: Change of temperature.</p>
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ICS 19.040

Võtmesõnad: climatic test, components, components specifications writing, dry heat, electricity, equipment, equipment specifications writing, gradual change of temperature, loading conditions, procedures, sudden change of temperature

English version

**Environmental testing -
Part 2-2: Tests -
Test B: Dry heat
(IEC 60068-2-2:2007)**

Essais d'environnement -
Partie 2-2: Essais -
Essai B: Chaleur sèche
(CEI 60068-2-2:2007)

Umgebungseinflüsse -
Teil 2-2: Prüfverfahren -
Prüfung B: Trockene Wärme
(IEC 60068-2-2:2007)

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

Foreword

The text of document 104/412/FDIS, future edition 5 of IEC 60068-2-2, prepared by IEC TC 104, Environmental conditions, classification and methods of test, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60068-2-2 on 2007-09-01.

This European Standard supersedes EN 60068-2-2:1993 + A1:1993 + A2:1994.

The main changes from EN 60068-2-2:1993 + A1:1993 + A2:1994 are as follows: Tests Ba and Bc have been deleted since they were more severe tests than Test Nb, EN 60068-2-14: Change of temperature. Secondly it was considered justified to delete the 3 % value on the temperature difference between the chamber air and the wall temperatures. Thirdly it is proposed that the test specimen be powered throughout the test where required; and, finally, the annexes have been removed.

The following dates were fixed:

- latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2008-06-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2010-09-01

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 60068-2-2:2007 was approved by CENELEC as a European Standard without any modification.

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

The following referenced documents are indispensable for the application 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.

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60068-1	1988	Environmental testing - Part 1: General and guidance	EN 60068-1 ¹⁾	1994
IEC 60068-3-1	- ²⁾	Environmental testing - Part 3: Background information - Section One: Cold and dry heat tests	EN 60068-3-1	1999 ³⁾
IEC 60068-3-5	- ²⁾	Environmental testing - Part 3-5: Supporting documentation and guidance - Confirmation of the performance of temperature chambers	EN 60068-3-5	2002 ³⁾
IEC 60068-3-7	- ²⁾	Environmental testing - Part 3-7: Supporting documentation and guidance - Measurements in temperature chambers for tests A and B (with load)	EN 60068-3-7	2002 ³⁾
IEC 60068-5-2	- ²⁾	Environmental testing - Part 5: Guide to drafting of test methods - Terms and definitions	EN 60068-5-2	1999 ³⁾
IEC 60721	Series	Classification of environmental conditions	EN 60721	Series

¹⁾ EN 60068-1 includes A1:1992 to IEC 60068-1 + corr. October 1988.

²⁾ Undated reference.

³⁾ Valid edition at date of issue.

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**Environmental testing –
Part 2-2: Tests – Test B: Dry heat**

**Essais d'environnement –
Partie 2-2: Essais – Essai B: Chaleur sèche**



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ENVIRONMENTAL TESTING –**Part 2-2: Tests – Test B: Dry heat**

FOREWORD

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International Standard IEC 60068-2-2 has been prepared by IEC technical committee 104: Environmental conditions, classification and methods of test.

This fifth edition of IEC 60068-2-2 cancels and replaces the fourth edition issued in 1974. It includes the revised text of the fourth edition, amendment 1 issued in 1993 and amendment 2 issued in 1994.

It has the status of a basic safety publication in accordance with IEC Guide 104.

The main changes from the previous edition are as follows: Tests Ba and Bc have been deleted since they were more severe tests than Test Nb, IEC 60068-2-14: Change of temperature. Secondly it was considered justified to delete the 3 % value on the temperature difference between the chamber air and the wall temperatures. Thirdly it is proposed that the test specimen be powered throughout the test where required; and, finally, the annexes have been removed.

The text of this standard is based on the following documents:

FDIS	Report on voting
104/412/FDIS	104/430/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This standard has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all the parts of the IEC 60068 series, under the general title *Environmental testing*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the maintenance result date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

- reconfirmed;
- withdrawn;
- replaced by a revised edition, or
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INTRODUCTION

RELATIONSHIP OF SUFFIXES BETWEEN TESTS A: COLD, AND TESTS B: DRY HEAT

The relationship of suffixes between Tests A: Cold, and Tests B: Dry heat, is shown in the following table:

Suffix letter	Tests A: Cold			Tests B: Dry heat		
	Specimen type	Temperature change	Air velocity	Specimen type	Temperature change	Air velocity
a	Withdrawn			Withdrawn		
b	Non heat	Gradual	High preferred	Non heat	Gradual	High preferred
c	Withdrawn			Withdrawn		
d	Heat dissipating	Gradual	Low preferred	Heat	Gradual	Low preferred
e	Heat dissipating powered throughout	Gradual	Low preferred	Heat, powered throughout	Gradual	Low preferred

ENVIRONMENTAL TESTING –

Part 2-2: Tests – Test B: Dry heat

1 Scope

This standard deals with dry heat tests applicable both to heat-dissipating and non heat-dissipating specimens. For non heat-dissipating specimens, Tests Bb and Bd do not deviate essentially from earlier issues.

The object of the dry heat test is limited to the determination of the ability of components, equipment or other articles to be used, transported or stored at high temperature.

These dry heat tests do not enable the ability of specimens to withstand or operate during the temperature variations to be assessed. In this case, it would be necessary to use IEC 60068-2-14 Test N: Change of temperature.

The dry heat tests are subdivided as follows:

Dry heat test for non heat-dissipating specimens

- with gradual change of temperature, Bb.

Dry heat tests for heat-dissipating specimens

- with gradual change of temperature, Bd;
- with gradual change of temperature, specimen powered throughout, Be.

The procedures given in this standard are normally intended for specimens that achieve temperature stability during the performance of the test procedure.

2 Normative references

IEC 60068-1:1988, *Environmental testing – Part 1: General and guidance*

IEC 60068-3-1, *Environmental testing – Part 3: Background information – Section one: Cold and dry heat tests*

IEC 60068-3-5, *Environmental testing – Part 3-5: Supporting documentation and guidance – Confirmation of the performance of temperature chambers*

IEC 60068-3-7, *Environmental testing – Part 3-7: Supporting documentation and guidance – Measurements in temperature chambers for tests A and B (with load)*

IEC 60068-5-2, *Environmental testing – Part 5-2: Guide to drafting of test methods – Terms and definitions*

IEC 60721 (all parts), *Classification of environmental conditions*