

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE

BASIC SAFETY PUBLICATION

PUBLICATION FONDAMENTALE DE SÉCURITÉ

**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- withdrawn;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
- amended.

## 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a	Withdrawn			Withdrawn		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*