



SLOVENSKI STANDARD

SIST EN 60068-2-48:2001

01-september-2001

Environmental testing - Part 2: Tests - Guidance on the application of the tests of IEC 60068 to simulate the effects of storage

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Umweltprüfungen -- Teil 2: Prüfungen - Leitfaden zur Anwendung der Prüfungen nach IEC 60068 zur Nachbildung der Auswirkungen von Lagerung

Essais d'environnement -- Partie 2: Essais - Guide sur l'utilisation des essais de la CEI 60068 pour simuler les effets du stockage

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Ta slovenski standard je istoveten z: EN 60068-2-48:1999

ICS:

19.040 Preskušanje v zvezi z Environmental testing
 okoljem

SIST EN 60068-2-48:2001

en

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 60068-2-48

November 1999

ICS 19.040

Supersedes HD 323.2.48 S1:1988

English version

Environmental testing
Part 2: Tests - Guidance on the application of the tests of
IEC 60068 to simulate the effects of storage
(IEC 60068-2-48:1982)

Essais d'environnement
Partie 2: Essais - Guide sur l'utilisation
des essais de la CEI 60068 pour simuler
les effets du stockage
(CEI 60068-2-48:1982)

Umweltprüfungen
Teil 2: Prüfungen - Leitfaden zur
Anwendung der Prüfungen nach
IEC 60068 zur Nachbildung der
Auswirkungen von Lagerung
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This European Standard was approved by CENELEC on 1999-10-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CENELEC

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 the International Standard IEC 60068-2-48:1982, prepared by IEC TC 50 (transformed into IEC TC 104 "Environmental conditions, classification and methods of test"), was approved by CENELEC as HD 323.2.48 S1 on 1988-03-01.

This Harmonization Document was submitted to the formal vote for conversion into a European Standard and was approved by CENELEC as EN 60068-2-48 on 1999-10-01.

The following date was 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) 2000-10-01

Annexes designated "normative" are part of the body of the standard.
In this standard, annex ZA is normative.
Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 60068-2-48:1982 was approved by CENELEC as a European Standard without any modification.

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Annex ZA (normative)

**Normative references to international publications
with their corresponding European publications**

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).

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		Basic environmental testing procedures Part 1: General and guidance	EN 60068-1	
IEC 60068-2-1		Part 2: Tests - Tests A: Cold	EN 60068-2-1	
IEC 60068-2-2	1974	Part 2: Tests - Test B: Dry heat	EN 60068-2-2 ¹⁾	1993
IEC 60068-2-3	1969	Part 2: Tests - Test Ca: Damp heat, steady state	HD 323.2.3 S2 ²⁾	1987

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1) EN 60068-2-2 includes supplement A:1976 to IEC 60068-2-2.

2) HD 323.2.3 S2 includes A1:1984 to IEC 60068-2-3.

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COMMISSION ÉLECTROTECHNIQUE INTERNATIONALE
NORME DE LA CEI

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC STANDARD

Publication 68-2-48

Première édition — First edition

1982

Essais fondamentaux climatiques et de robustesse mécanique

Deuxième partie: Essais

**Guide sur l'utilisation des essais de la Publication 68
de la CEI pour simuler les effets du stockage**

(standards.iteh.ai)

Basic environmental testing procedures

<https://standards.iteh.ai/catalog/standards/sist/34f7324e-89fc-40ed-a7ff-41dc4aa0ef69/sist-en-60068-2-48-2001>
Part 2: Tests

**Guidance on the application of the tests of IEC Publication 68
to simulate the effects of storage**



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INTERNATIONAL ELECTROTECHNICAL COMMISSION

BASIC ENVIRONMENTAL TESTING PROCEDURES

Part 2: Tests

Guidance on the application of the tests of
IEC Publication 68 to simulate the effects of storage

FOREWORD

- 1) The formal decisions or agreements of the IEC on technical matters, prepared by Technical Committees on which all the National Committees having a special interest therein are represented, express, as nearly as possible, an international consensus of opinion on the subjects dealt with.
- 2) They have the form of recommendations for international use and they are accepted by the National Committees in that sense.
- 3) In order to promote international unification, the IEC expresses the wish that all National Committees should adopt the text of the IEC recommendation for their national rules in so far as national conditions will permit. Any divergence between the IEC recommendation and the corresponding national rules should, as far as possible, be clearly indicated in the latter.

PREFACE

This publication has been prepared by Sub-Committee 50B: Climatic Tests, of IEC Technical Committee No. 50: Environmental Testing.

A first draft was discussed at the meeting held in Paris in 1979. As a result of this meeting, a new draft, Document 50B(Central Office)222, was submitted to the National Committees for approval under the Six Months' Rule in October 1980.

The National Committees of the following countries voted explicitly in favour of publication:

Belgium	Netherlands
Brazil	Norway
Bulgaria	Poland
China	Romania
Czechoslovakia	South Africa (Republic of)
Denmark	Spain
Egypt	Sweden
Finland	Switzerland
France	Turkey
German Democratic Republic	Union of Soviet Socialist Republics
Hungary	United Kingdom
Israel	United States of America
Japan	
Korea (Democratic People's Republic of)	

Other IEC publications quoted in this standard:

Publications Nos. 68-1: Basic Environmental Testing Procedures. Part 1: General.

68-2-1: Tests A: Cold.

68-2-2: Tests B: Dry heat.

68-2-3: Test Ca: Damp heat, steady state.

BASIC ENVIRONMENTAL TESTING PROCEDURES

Part 2: Tests

Guidance on the application of the tests of IEC Publication 68 to simulate the effects of storage

1. Definition of storage

In this guide the term "storage" describes the keeping of components, equipment or other articles for relatively long periods of time (ranging from some weeks to many years) in a non-operating mode, and:

- a) in the environmental conditions typical of industrial warehouses, retail stores, etc., or
- b) in reserve or emergency equipment or plant, for example, fire alarms, auxiliary motors, stand-by generators, etc.; in this case, the product may be subjected to particularly severe environmental stresses due to operation of the surrounding plant, or
- c) in installations which take a long time to complete, where the initial environment may be much more severe than the operational environment, e.g. large telephone switching offices, large computer installations, power stations, etc.

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Note. — Reference should be made to specialized standards for environmental data relative to these conditions.

2. Definition and object of a "storage test"

A "storage test" is intended to simulate the effects of one or more environmental stresses acting on products during their normal storage life, and when the assumption of fatigue accumulation is likely, to establish whether:

- a) storage prevents the use of the product in its intended application, for example the solderability characteristics of component leads or printed circuit boards are worsened, the drift of electrical parameters is excessive, open circuits or short circuits are caused, or
- b) significant performance and/or reliability degradation occurs for products operated after storage, or
- c) for emergency equipment, the ability of products to function correctly and reliably is not impaired after prolonged non-operation.

Note. — For the reliability determination of relatively new products or those stored for long periods, and for the determination of functioning reliability after storage, reference should be made to the IEC standards dealing with reliability and maintainability.