



**SLOVENSKI STANDARD**  
**SIST EN 60068-2-30:2006**  
**01-februar-2006**

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**SIST EN 60068-2-30:2001**

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Environmental testing - Part 2-30: Tests - Test Db: Damp heat, cyclic (12 h + 12 h cycle)

Umgebungseinflüsse - Teil 2-30: Prüfverfahren - Prüfung Db: Feuchte Wärme, zyklisch  
(12 + 12 Stunden)

Essais d'environnement - Partie 2-30: Essais - Essai Db: Essai cyclique de chaleur  
humide (cycle de 12 h + 12 h)

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**Ta slovenski standard je istoveten z: EN 60068-2-30:2005**

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**ICS:**

19.040

**SIST EN 60068-2-30:2006**

**en**

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EUROPEAN STANDARD

**EN 60068-2-30**

NORME EUROPÉENNE

EUROPÄISCHE NORM

December 2005

ICS 19.040

Supersedes EN 60068-2-30:1999

English version

**Environmental testing**  
**Part 2-30: Tests –**  
**Test Db: Damp heat, cyclic (12 h + 12 h cycle)**  
**(IEC 60068-2-30:2005)**

Essais d'environnement  
Partie 2-30: Essais –  
Essai Db: Essai cyclique de chaleur  
humide (cycle de 12 h + 12 h)  
(CEI 60068-2-30:2005)

Umgebungseinflüsse  
Teil 2-30: Prüfverfahren –  
Prüfung Db: Feuchte Wärme, zyklisch  
(12 + 12 Stunden)  
(IEC 60068-2-30:2005)

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This European Standard was approved by CENELEC on 2005-11-01. 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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, 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 document 104/369/FDIS, future edition 3 of IEC 60068-2-30, 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 60068-2-30 on 2005-11-01.

This European Standard supersedes EN 60068-2-30:1999.

The main changes with respect to EN 60068-2-30:1999 are:

- editorial changes,
- addition of normative references,
- addition of guidance for temperature tolerances,
- period for recovery has been extended.

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) 2006-08-01
- latest date by which the national standards conflicting  
with the EN have to be withdrawn (dow) 2008-11-01

Annex ZA has been added by CENELEC.

[SIST EN 60068-2-30:2006](https://standards.iteh.ai/catalog/standards/sist/f4b7bea9-471d-4df4-8320-309e0a0cd36/sist-en-60068-2-30-2006)

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### Endorsement notice

The text of the International Standard IEC 60068-2-30:2005 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

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 Where 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 60068-2-38     | - <sup>1)</sup> | Environmental testing<br>Part 2: Tests - Test Z/AD: Composite<br>temperature/humidity cyclic test                           | EN 60068-2-38            | 1999 <sup>2)</sup> |
| IEC 60068-3-6      | - <sup>1)</sup> | Part 3-6: Supporting documentation and<br>guidance - Confirmation of the<br>performance of temperature/humidity<br>chambers | EN 60068-3-6             | 2002 <sup>2)</sup> |
| IEC 60068-1        | 1988            | Part 1: General and guidance  | EN 60068-1 <sup>3)</sup> | 1994               |
| IEC 60068-5-2      | - <sup>1)</sup> | Part 5: Guide to drafting of test methods -<br>Terms and definitions  | EN 60068-5-2             | 1999 <sup>2)</sup> |

[SIST EN 60068-2-30:2006](https://standards.iteh.ai/catalog/standards/sist/f4b7bea9-471d-4df4-8320-309ea0a0cd36/sist-en-60068-2-30-2006)

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1) Undated reference.

2) Valid edition at date of issue.

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

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# INTERNATIONAL STANDARD

# NORME INTERNATIONALE

BASIC SAFETY PUBLICATION

PUBLICATION FONDAMENTALE DE SÉCURITÉ

**Environmental testing –**  
**Part 2-30: Tests – Test Db: Damp heat, cyclic (12 + 12 h cycle)**

**Essais d'environnement –**  
**Partie 2-30: Essais – Essai Db: Essai cyclique de chaleur humide**  
**(cycle de 12 h + 12 h)**

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

COMMISSION  
ELECTROTECHNIQUE  
INTERNATIONALE

PRICE CODE  
CODE PRIX

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

## ENVIRONMENTAL TESTING –

**Part 2-30: Tests – Test Db :  
Damp heat, cyclic (12 h + 12 h cycle)**

## FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as “IEC Publication(s)”). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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- 4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.  
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- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
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International Standard IEC 60068-2-30 has been prepared by IEC technical committee 104: Environmental conditions, classification and methods of test.

This third edition cancels and replaces the second edition (1980) and its amendment 1 (1985), and constitutes a technical revision.

The main changes with respect to the previous edition are listed below:

- editorial changes,
- addition of normative references,
- addition of guidance for temperature tolerances,
- period for recovery has been extended.

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

| FDIS         | Report on voting |
|--------------|------------------|
| 104/369/FDIS | 104/374/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 publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

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

This standard forms Part 2-30 of IEC 60068 which consists of the following major parts, under the general title *Environmental testing*:

- Part 1: General and guidance;
- Part 2: Tests;
- Part 3: Supporting documentation and guidance;
- Part 4: Information for specification writers;
- Part 5: Guide to drafting of test methods.

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.

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 SIST EN 60068-2-30:2006  
<http://standards.iteh.ai/catalog/standards/sist/f4b7bea9-471d-4df4-8320-309ea0a0cd36/sist-en-60068-2-30-2006>

## ENVIRONMENTAL TESTING –

### Part 2-30: Tests – Test Db: Damp heat, cyclic (12 h + 12 h cycle)

#### 1 Scope

This part of IEC 60068 determines the suitability of components, equipment or other articles for use, transportation and storage under conditions of high humidity – combined with cyclic temperature changes and, in general, producing condensation on the surface of the specimen. If the test is being used to verify the performance of a specimen whilst it is being transported or stored in packaging then the packaging will normally be fitted when the test conditions are being applied.

For small, low mass specimens, it may be difficult to produce condensation on the surface of the specimen using this procedure; users should consider the use of an alternative procedure such as that given to IEC 60068-2-38.

#### 2 Normative references

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.

IEC 60068-2-38, *Environmental testing – Part 2-38: Tests – Test Z/AD: Composite temperature/humidity cyclic test* SIST EN 60068-2-30:2006  
(standardsiteh.eu)

IEC 60068-3-6, *Environmental testing – Part 3-6: Supporting documentation and guidance – Confirmation of the performance of temperature/humidity chambers*

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

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

#### 3 General description

This test comprises one or more temperature cycles in which the relative humidity is maintained at a high level.

Two variants of the cycle are given which are identical except for the temperature fall period; during this part of the cycle, variant 2 allows wider tolerances of relative humidity and the rate of temperature fall.

The upper temperature of the cycle and the number of cycles (see Clause 5) determine the test severity.

Test profiles illustrating the procedure are shown in Figures 1, 2a, 2b and 3.