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

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NATIONAL FOREWORD

See Eesti standard EVS-EN IEC 60068-2-30:2025 sisaldab Euroopa standardi EN IEC 60068-2-30:2025 ingliskeelset teksti.	This Estonian standard EVS-EN IEC 60068-2-30:2025 consists of the English text of the European standard EN IEC 60068-2-30:2025.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 10.10.2025.	Date of Availability of the European standard is 10.10.2025.
Standard on kättesaadav Eesti Standardimis-ja Akrediteerimiskeskusest.	The standard is available from the Estonian Centre for Standardisation and Accreditation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 19.040

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN IEC 60068-2-30

October 2025

ICS 19.040

Supersedes EN 60068-2-30:2005

English Version

Environmental testing - Part 2-30: Tests - Test Db: Damp heat, cyclic (12 h + 12 h cycle) (IEC 60068-2-30:2025)

Essais d'environnement - Partie 2-30: Essais - Essai Db: Essai cyclique chaleur de humide (cycle de 12 h + 12 h) (IEC 60068-2-30:2025)

Umgebungseinflüsse - Teil 2-30: Prüfverfahren - Prüfung Db: Feuchte Wärme, zyklisch (12 + 12 Stunden) (IEC 60068-2-30:2025)

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Ref. No. EN IEC 60068-2-30:2025 E

European foreword

The text of document 104/1111/FDIS, future edition 4 of IEC 60068-2-30, prepared by TC 104 "Environmental conditions, classification and methods of test" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 60068-2-30:2025.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2026-10-31
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2028-10-31

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The text of the International Standard IEC 60068-2-30:2025 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standard indicated:

IEC 60068-2-38	NOTE	Approved as EN IEC 60068-2-38
IEC 60068-3-4	NOTE	Approved as EN IEC 60068-3-4
IEC 60068-3-6	NOTE	Approved as EN IEC 60068-3-6
IEC 60068-3-7	NOTE	Approved as EN IEC 60068-3-7

IEC 60068-2-30

Edition 4.0 2025-08

INTERNATIONAL STANDARD

NORME INTERNATIONALE

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

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

ICS 19.040

ISBN 978-2-8327-0616-9

IEC 60068-2-30:2025-08(en-fr)

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

FOREWORD

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IEC 60068-2-30 has been prepared by IEC technical committee 104: Environmental conditions, classification and methods of test. It is an International Standard.

This fourth edition cancels and replaces the third edition published in 2005. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

a) revision of the requirements for the test chamber;
b) change of the temperature tolerances of the test to limits;
c) updating of the figures for clarification purposes;
d) revision of the limits of the temperature and relative humidity during conditioning;
e) revision of the intermediate measurements;
f) revision of standardized requirements for the test report.

The text of this International Standard is based on the following documents:

Draft	Report on voting
104/1111/FDIS	104/1125/RVD

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

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

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 document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn, or
- revised.

1 Scope

This part of IEC 60068 specifies a test procedure to determine 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. This test method can also be used to validate the packaging of specimen for transportation and storage.

This document does only in exceptional cases apply to specimens that are energized throughout the test.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 60068-1, *Environmental testing - Part 1: General and guidance*

IEC 60068-2-67, *Environmental testing - Part 2-67: Tests - Test Cy: Damp heat, steady state, accelerated test primarily intended for components*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 60068-1 apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- IEC Electropedia: available at https://www.electropedia.org/
- ISO Online browsing platform: available at https://www.iso.org/obp

4 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 cooling period; during this part of the cycle, Variant 2 allows wider limits of relative humidity and the temperature change rate.

The conditioning temperature and the number of cycles (see Clause 6) determine the test severity.

The preconditioning phase is illustrated in Figure 1, the test procedure in Figure 2 to Figure 5 and the recovery procedure in Figure 6.

NOTE For small, low mass specimens, it can be difficult to produce condensation on the surface of the specimen using this procedure; considering an alternative test such as Test Z/AD (IEC 60068-2-38) can be helpful.