BSI Standards Publication

Environmental testing

Part 2-78: Tests — Test Cab: Damp heat, steady state

bsi.

National foreword

This British Standard is the UK implementation of EN IEC 60068-2-78:2025. It is identical to IEC 60068-2-78:2025. It supersedes BS EN 60068-2-78:2013, which will be withdrawn on 31 October 2028.

The UK participation in its preparation was entrusted to Technical Committee GEL/104, Environmental conditions, classification and testing.

A list of organizations represented on this committee can be obtained on request to its committee manager.

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English Version

Environmental testing - Part 2-78: Tests - Test Cab: Damp heat, steady state (IEC 60068-2-78:2025)

Essais d'environnement - Partie 2-78: Essais - Essai Cab: Chaleur humide, essai continu (IEC 60068-2-78:2025)

Umgebungseinflüsse - Teil 2-78: Prüfverfahren - Prüfung Cab: Feuchte Wärme, konstant (IEC 60068-2-78:2025)

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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

European foreword

The text of document 104/1109/FDIS, future edition 3 of IEC 60068-2-78, 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 60068-2-78:2025.

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- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2028-10-31

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Endorsement notice

The text of the International Standard IEC 60068-2-78:2025 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 60068-3-6	NOTE	Approved as EN IEC 60068-3-6
IEC 60068-3-7	NOTE	Approved as EN IEC 60068-3-7

(normative)

Normative references to international publications with their corresponding European publications

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.

NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cencenelec.eu.

Publication	Year	Title	EN/HD	Year
IEC 60068-1	2013	Environmental testing - Part 1: General and guidance	EN 60068-1	2014
IEC 60068-2-67	-	Environmental testing - Part 2-67: Tests - Test Cy: Damp heat, steady state, accelerated test primarily intended for components	EN 60068-2-67	-

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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Environmental testing - Part 2-78: Tests - Test Cab: Damp heat, steady state

FOREWORD

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IEC 60068-2-78 has been prepared by technical committee 104: Environmental conditions, classification, and methods of test. It is an International Standard.

This third edition cancels and replaces the second edition published in 2012. 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) revision of the severities and including the dew point temperatures;
c) change of the temperature tolerances of the test to limits;
d) inclusion of a specified preconditioning procedure;
e) inclusion of a new figure for clarification purposes;

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
104/1109/FDIS	104/1126/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 in 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.

INTRODUCTION

This part of IEC 60068 provides a test method of high humidity at constant temperature without condensation on the specimen over a specified period. This test is performed to evaluate the specimen as it is influenced by the absorption and diffusion of moisture and moisture vapour.

1 Scope

This part of IEC 60068 establishes a test method for determining the ability of components or equipment to withstand transportation, storage and use under conditions of high humidity.

The object of this document is to investigate the effect of high humidity at constant temperature without condensation on a specimen over a specified period.

It is applicable to small equipment or components as well as large equipment and can be applied to both heat-dissipating and non-heat-dissipating specimens.

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 60068-1:2013, *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 test procedure

4.1 General

Test Cab can be applied to both heat-dissipating and non-heat-dissipating specimens.

The temperature and relative humidity limits given in this document are intended to take into account errors in the measurement, slow changes of temperature, and temperature variations of the working space.

NOTE 1 For further information on the working space, see IEC 60068-3-6.

The temperature and relative humidity refer to the control sensor of the test chamber, if not specified otherwise.

The limits stated in this document do not take measurement uncertainty into consideration.

NOTE 2 These limits are valid for an empty test space during stabilized temperature/humidity conditions of the test. In some conditions, where the specimen has a negligible impact on the chamber control, the limits can still be valid for the chamber with specimen(s). For further information on the operation of a test chamber with specimens, see IEC 60068-3-7.