BSI Standards Publication

Environmental testing

Part 2-75: Tests — Test Eh: Hammer tests

bsi.

National foreword

This British Standard is the UK implementation of EN 60068-2-75:2014+A1:2025. It is identical to IEC 60068-2-75:2014, incorporating amendment 1:2025. It supersedes BS EN 60068-2-75:2014, which will be withdrawn on 31 December 2028.

The start and finish of text introduced or altered by amendment is indicated in the text by tags. Tags indicating changes to IEC text carry the number of the IEC amendment. For example, text altered by IEC amendment 1 is indicated by A1 A1.

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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Published by BSI Standards Limited 2026

ISBN 978 0 539 28738 7

ICS 19.040

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This British Standard was published under the authority of the Standards Policy and Strategy Committee on 30 November 2014.

Amendments/corrigenda issued since publication

Date	Text affected
31 January 2026	Implementation of IEC amendment 1:2025 with CENELEC endorsement A1:2025

EUROPEAN STANDARD **EN 60068-2-75:2014+A1**

EUROPÄISCHE NORM

December 2025

ICS 19.040

Supersedes EN 60068-2-75:1997

English Version

Environmental testing - Part 2-75: Tests - Test Eh: Hammer tests (IEC 60068-2-75:2014)

Essais d'environnement -
Partie 2-75: Essais - Test Eh: Essais au marteau
(CEI 60068-2-75:2014)

Umgebungseinflüsse -
Teil: 2-75: Prüfungen - Prüfung Eh: Hammerprüfungen
(IEC 60068-2-75:2014)

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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 CEN-CENELEC Management Centre has the same status as the official versions.

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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Ref. No. EN 60068-2-75:2014 E

The text of document 104/635/FDIS, future edition 2 of IEC 60068-2-75, prepared by IEC/TC 104 "Environmental conditions, classification and methods of test" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60068-2-75:2014.

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)	2015-07-08
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2017-10-08

This document supersedes EN 60068-2-75:1997.

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Endorsement notice

The text of the International Standard IEC 60068-2-75:2014 was approved by CENELEC as a European Standard without any modification.

European foreword to amendment A1

The text of document 104/1106/FDIS, future edition 2 of IEC 60068-2-75/AMD1, 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 60068-2-75:2014/A1:2025.

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)	2026-12-31
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2028-12-31

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Endorsement notice

The text of the International Standard IEC 60068-2-75:2014/AMD1:2025 was approved by CENELEC as a European Standard without any modification.

(normative)

Normative references to international publications with their corresponding European publications

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE 1 When 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.cenelec.eu

Publication	Year	Title	EN/HD	Year
IEC 60068-1	-	Environmental testing - Part 1: General and guidance	EN 60068-1	-
IEC 60721-1	-	Classification of environmental conditions - Part 1: Environmental parameters and their severities	EN 60721-1	-
IEC Guide 104	-	The preparation of safety publications and the use of basic safety publications and group safety publications	-	-
IEC Guide 108	-	Guidelines for ensuring the coherency of IEC publications - Application of horizontal standards	-	-
ISO 48-4	-	Rubber, vulcanized or thermoplastic - Determination of hardness - Part 4: Indentation hardness by durometer method (Shore hardness)	-	-
ISO 1052	-	Steels for general engineering purposes	-	-
ISO 2039-2	-	Plastics - Determination of hardness - Part 2: Rockwell hardness	EN ISO 2039-2	-
ISO 2041	-	Mechanical vibration, shock and condition monitoring - Vocabulary	-	-
ISO 2768-1	-	General tolerances - Part 1: Tolerances for linear and angular dimensions without individual tolerance indications	EN 22768-1	-
ISO 6508-1	-	Metallic materials - Rockwell hardness test - Part 1: Test method	EN ISO 6508-1	-

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FOREWORD

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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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Environmental conditions, classification and methods of test.

This second edition cancels and replaces the first edition, published in 1997, and constitutes a technical revision.

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

– reconsideration of some values in Tables 1 and 2. Although some values are no longer recommended, they have been retained as alternatives for historical consistency purposes.

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

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

FDIS	Report on voting
104/635/FDIS	104/637/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.

A list of all parts in the IEC 60068 series, published under the general title *Environmental testing*, can be found on the IEC website.

The committee has decided that the contents of this document and its amendment 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.

Mechanical impacts likely to stress electrotechnical equipment in service can be generated by hammers of various types. For standardization purposes, the results of such testing should not depend on the type of testing apparatus and therefore, the characteristics of the various types of test hammers described in this part of IEC 60068 are intended to be as close as practicable for the same severity level.

It is important to note that both Clause 3 and the test method selected from Clauses 4, 5, and 6 need to be complied with in order to satisfy the requirements of this International Standard.

The severity levels are, in general, taken from IEC 60721-1.

For coordination purposes, it has been necessary to change certain fundamental parameters of the previous tests Ef: Impact, pendulum hammer, and Eg: Impact, spring hammer. In all cases, both sets of parameters are shown at the appropriate places in the text. Although some values are no longer recommended, they have been retained as alternatives for historical consistency purposes. This is because they have application in certain industries as historic comparators.

1 Scope

This part of IEC 60068 provides three standardized and coordinated test methods for determining the ability of a specimen to withstand specified severities of impact. It is used, in particular, to demonstrate an acceptable level of robustness when assessing the safety of a product and is primarily intended for the testing of electrotechnical items. It consists of the application to the specimen of a prescribed number of impacts defined by their impact energy and applied in the prescribed directions.

This part of IEC 60068 covers energy levels ranging from 0,14 J (joules) to 50 J (joules).

Three types of test apparatus are applicable to perform these tests. Annex C provides some guidance as to this aspect.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. 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 60721-1, *Classification of environmental conditions – Part 1: Environmental parameters and their severities*

IEC Guide 104, *The preparation of safety publications and the use of basic safety publications and group safety publications*

IEC Guide 108, *Guidelines for ensuring the coherency of IEC publications – Application of horizontal standards*

▌A1⟩ ISO 48-4, *Rubber, vulcanized or thermoplastic - Determination of hardness* ⟨A1▐

ISO 1052, *Steels for general engineering purposes*

ISO 2039-2, *Plastics – Determination of hardness – Part 2: Rockwell hardness*

ISO 2041, *Vibration and shock and condition monitoring – Vocabulary*

ISO 2768-1, *General tolerances – Part 1: Tolerances for linear and angular dimensions without individual tolerances indications*

▌A1⟩ ISO 6508-1, *Metallic materials - Rockwell hardness test - Part 1: Test method* ⟨A1▐

3 Terms and definitions

For the purposes of this document, the terms and definitions used in ISO 2041 or in IEC 60068-1, together with the following, apply.

3.1
combined mass of the striking element
sum of the masses of the striking element and of the element's fixing system