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CONSOLIDATED VERSION

**Environmental testing -
Part 2-75: Tests - Test Eh: Hammer tests**



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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**Environmental testing -
Part 2-75: Tests - Test Eh: Hammer tests**

FOREWORD

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IEC 60068-2-75 edition 2.1 contains the second edition (2014-09) [documents 104/635/FDIS and 104/637/RVD] and its amendment 1 (2025-10) [documents 104/1106/FDIS and 104/1137/RVD]. The content of the corrigendum 1 of amendment 1 (2025-12) applies only to the French version.

In this Redline version, a vertical line in the margin shows where the technical content is modified by amendment 1. Additions are in green text, deletions are in strikethrough red text. A separate Final version with all changes accepted is available in this publication.

International Standard IEC 60068-2-75 has been prepared by IEC technical committee 104: 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,
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INTRODUCTION

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*

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

~~ISO 6508 (all parts), *Metallic materials – Rockwell hardness test*~~

ISO 6508-1, *Metallic materials - Rockwell hardness test - Part 1: Test method*

Bibliography

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