AS 60068.2.75—2003
IEC 60068-2-75:1997

Australian Standard™

Environmental testing

Part 2.75: Tests—Test Eh: Hammer tests

Standards Australia

This Australian Standard was prepared by Committee EL-026, Protective Enclosures and Environmental Testing for Electrical/Electronic Equipment. It was approved on behalf of the Council of Standards Australia on 23 October 2003 and published on 28 November 2003.

The following are represented on Committee EL-026:

Australian Chamber of Commerce and Industry
Australian Electrical and Electronic Manufacturer's Association
Electrical Compliance Testing Association
Electrical Regulatory Authorities Council
Electricity Supply Association of Australia
Testing Interests (Australia)

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PREFACE

This Standard was prepared by the Standards Australia Committee EL-026, Protective Enclosures and Environmental Testing for Electrical/Electronic Equipment to supersede AS 1099.2.63—1994, *Basic environmental testing procedures for electrotechnology,* Part 2.63: *Tests—Test Eg—Impact, spring hammer.*

The objective of this Standard is to provide the electrotechnology industry with a complete set of environmental test procedures published as a series under AS 60068 *Environmental testing*. This Standard is Part 2.75 of that series.

This Standard is identical with, and has been reproduced from, IEC 60068-2-75:1997, *Environmental testing – Part 2-75: Tests—Test Eh: Hammer tests*.

As this Standard is reproduced from an International Standard, the following applies:

(a) Its number does not appear on each page of text and its identity is shown only on the cover and title page.

(b) In the source text 'this international standard' should read 'this Australian Standard'.

(c) A full point should be substituted for a comma when referring to a decimal marker.

(d) any French text on figures should be ignored.

In this Standard, the following print types are used:

– requirements proper: in arial type;

– *test specifications: in italic type;*

– explanatory matter: in smaller arial type.

Any international Standard referenced should be replaced by an equivalent Australian Standard when one is available. The availability of equivalent Australian Standards can be determined either from the Standards Australia catalogue or from the Standards Australia website (www.standards.com.au).

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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 co-ordination 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 and will remain valid until five years from the publication of IEC 60068-2-75:1997. At that time, the values in brackets will be removed.

NOTES

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1 Scope

This part of IEC 60068 provides three standardized and co-ordinated 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 joules (J) to 50 joules (J).

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 normative documents contain provisions which, through reference in this text, constitute provisions of this part of IEC 60068. At the time of publication, the editions indicated were valid. All normative documents are subject to revision, and parties to agreements based on this part of IEC 60068 should investigate the possibility of applying the most recent editions of the standards listed below. Members of IEC and ISO maintain registers of currently valid International Standards.

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

IEC 60721-1: 1990, *Classification of environmental conditions – Part 1: Environmental parameters and their severities*
Amendment 1, 1992

ISO 1052: 1982, *Steels for general engineering purposes*

ISO 2039-2: 1987, *Plastics – Determination of hardness – Part 2: Rockwell hardness*

ISO 2041: 1990, *Vibration and shock – Vocabulary*

ISO 2768-1: 1989, *General tolerances – Part 1: Tolerances for linear and angular dimensions without individual tolerances indicated*

ISO 6508: 1986, *Metallic materials – Hardness test – Rockwell test (scales A – B – C – D – E – F – G – H – K)*