

Environmental testing

Part 2. Test methods

Test Eg: Impact, spring hammer

The European Standard EN 60068-2-63 : 1994 has the status of a British Standard

This Part should be read in conjunction with BS 2011 : Part 1 : 1989 General and guidance

Cooperating organizations

The European Committee for Electrotechnical Standardization (CENELEC), under whose supervision this European Standard was prepared, comprises the national committees of the following countries:

Austria	Italy
Belgium	Luxembourg
Denmark	Netherlands
Finland	Norway
France	Portugal
Germany	Spain
Greece	Sweden
Iceland	Switzerland
Ireland	United Kingdom

This British Standard, having been prepared under the direction of the Electrotechnical Sector Board (E/1), was published under the authority of the Standards Board and comes into effect on 15 March 1995

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The following BSI references relate to the work on this standard:
Committee reference GEL/15/1
Draft for comment 87/24591 DC

ISBN 0 580 23732 X

Amendments issued since publication

Amd. No.	Date	Text affected

Contents

	Page
Cooperating organizations	Inside front cover
National foreword	i
Foreword	2
Text of EN 60068-2-63	3
National annex NA (informative) Committees responsible	Inside back cover
National annex NB (informative) Cross-references	Inside back cover

National foreword

This British Standard has been prepared under the direction of the Electrotechnical Sector Board and is the English language version of EN 60068-2-63 : 1994 *Environmental testing, Part 2: Test methods — Test Eg: Impact, spring hammer*, published by the European Committee for Electrotechnical Standardization (CENELEC). It is identical with IEC 68-2-63 : 1991 published by the International Electrotechnical Commission (IEC). The English title for table B.1 is 'Release force and impact energy'.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

UDC 621.3 : 620.193 : 620.178.3 : 621.974.5

Descriptors: Environmental testing, electricity, component, equipment, mechanical test, impacts, spring hammer, procedures, components specifications writing, equipment specifications writing

English version

Environmental testing
Part 2: Test methods
Test Eg: Impact, spring hammer

(IEC 68-2-63 : 1991)

Essais d'environnement
Partie 2: Méthodes d'essai
Essai Eg: Impacts, marteau à ressort
(CEI 68-2-63 : 1991)

Umweltprüfungen
Teil 2: Prüfverfahren
Prüfung Eg: Stoßen, Federhammer
(IEC 68-2-63 : 1991)

This European Standard was approved by CENELEC on 1994-03-08. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

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 Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
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Foreword

At the request of the CENELEC Reporting Secretariat SR 50A the International Standard IEC 68-2-63 : 1991 was submitted to the CENELEC Unique Acceptance Procedure (UAP) in July 1993 for acceptance as a European Standard.

The text of the International Standard was approved by CENELEC as EN 60068-2-63 on 8 March 1994.

The following dates were fixed:

- latest date of publication
of an identical national
standard (dop) 1995-03-15
- latest date of withdrawal
of conflicting national
standards (dow) 1995-03-15

Annexes designated 'normative' are part of the body of the standard. Annexes designated 'informative' are given only for information. In this standard, annexes A and ZA are normative and annex B is informative.

CONTENTS

	Page
INTRODUCTION	4
Clause	
1 Object	5
2 Normative references	5
3 Definitions	5
4 Test apparatus	5
5 Severities	7
6 Pre-conditioning	8
7 Initial measurements	8
8 Testing	8
9 Recovery	8
10 Final measurements	9
11 Information to be given in the relevant specification	9
Figures	
1. Spring - operated impact (spring hammer) test apparatus	10
A.1 Pendulum	13
A.2 Steel spring	14
A.3 Calibration device	15
A.4 Details of the calibration device	16
A.5 Arrangement for the calibration of the calibration device	17
A.6 Division of scale plate	18
Annexes	
A – Calibration of test apparatus	11
B – Guidance	19
ZA - (normative) Other international publications quoted in this standard with the references of the relevant European publication.....	21

INTRODUCTION

The preparation of this standard has resulted from the allocation to Sub-Committee 50A of a "Safety Pilot Function" for methods of testing mechanical robustness, such as those employing the spring hammer, the pendulum hammer and the rotating/tumbling barrel. The present standard is intended to form a basic safety publication capable of replacing, by means of a cross-reference, the requirements for this test method that now appear in product standards.

Specification writers will find in clause 11 a list of details to be considered for inclusion in specifications and in annex B (informative), the guidance.

Annex A is a normative annex giving details of the calibration of test apparatus taken from IEC 817 which is expected to be withdrawn after this basic safety publication has been published. Although there are differences of an editorial nature because of the changed format, no technical changes have been made.

ENVIRONMENTAL TESTING

Part 2: Test methods Test Eg: Impact, spring hammer

1 Object

The object of this International Standard is to provide a standard method of test for determining the ability of a specimen of an electrotechnical product to withstand specified severities of impact. It is used, in particular, to demonstrate an acceptable level of robustness when assessing the safety of the product.

This standard is primarily intended for the testing of specimens of household and similar electrical appliances, electrical accessories and similar items. It consists of the application to the specimen of a prescribed number of impacts defined by their impact energy and applied in any prescribed direction by a hand-held test apparatus with a spring-operated hammer.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to 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 68-1: 1988, *Environmental testing – Part 1: General and guidance*.

IEC 817: 1984, *Spring-operated impact-test apparatus and its calibration*.

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

ISO 2041: 1990, *Vibration and shock - Vocabulary*.

3 Definitions

The terms used are generally defined in IEC 68-1 or in ISO 2041.

4 Test apparatus

4.1 Description

Figure 1 shows the spring-operated impact (spring hammer) test apparatus. (This apparatus is based on that in IEC 817.) The apparatus consists of three principal parts: the body, the striking element, and the spring-loaded release cone.