

Australian Standard™

Environmental testing

**Part 4: Information for specification
writers—Test summaries**

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 28 February 2003 and published on 8 May 2003.

The following are represented on Committee EL-026:

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

Keeping Standards up-to-date

Standards are living documents which reflect progress in science, technology and systems. To maintain their currency, all Standards are periodically reviewed, and new editions are published. Between editions, amendments may be issued. Standards may also be withdrawn. It is important that readers assure themselves they are using a current Standard, which should include any amendments which may have been published since the Standard was purchased.

Detailed information about Standards can be found by visiting the Standards Australia web site at www.standards.com.au and looking up the relevant Standard in the on-line catalogue.

Alternatively, the printed Catalogue provides information current at 1 January each year, and the monthly magazine, *The Australian Standard*, has a full listing of revisions and amendments published each month.

We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Contact us via email at mail@standards.com.au, or write to the Chief Executive, Standards Australia International Ltd, GPO Box 5420, Sydney, NSW 2001.

Australian Standard™

Environmental testing

Part 4: Information for specification writers—Test summaries

Originated as HB 14—1988.
Previous edition AS 1099.4—1994.
AS 1099.4—1994 revised and redesignated as AS 60068.4—2003.

COPYRIGHT

© Standards Australia International

All rights are reserved. No part of this work may be reproduced or copied in any form or by any means, electronic or mechanical, including photocopying, without the written permission of the publisher.

Published by Standards Australia International Ltd
GPO Box 5420, Sydney, NSW 2001, Australia

ISBN 0 7337 5149 0

PREFACE

This Standard was prepared by the Standards Australia Committee EL-026, Protective Enclosures and Environmental Testing for Electrical/Electronic Equipment to supersede AS 1099.4—1994, *Basic environmental testing procedures for electrotechnology Part 4: Information for specification writers—Test summaries*.

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 4 of that series.

This Standard is identical with, and has been reproduced from, consolidated IEC 60068-4:1997 Ed 1.2, *Environmental testing – Part 4: Information for specification writers – Test summaries* which includes its Amendments 1 and 2.

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).

CONTENTS

	<i>Page</i>
1 Object	1
2 General	1
2.1 Guidance.....	1
2.2 Storage	1
2.3 Mounting	2
3 Definitions	2
3.1 Test.....	2
3.1.1 Preconditioning.....	2
3.1.2 Conditioning	2
3.1.3 Recovery	2
3.2 Specimen	2
3.2.1 Heat-dissipating specimen.....	2
3.2.2 Non-heat-dissipating specimen.....	2
3.3 Relevant specification	3
3.4 Severity.....	3
3.5 Combined test.....	3
3.6 Composite test	3
4 Lists of test summaries.....	3
5 Lists of guidance documents	7
6 Test summaries	9

STANDARDS AUSTRALIA

Australian Standard

Environmental testing

Part 4: Information for specification writers—Test summaries

1 Object

To provide information in summarized form on the individual environmental tests in IEC 60068-2 to serve the purposes of specification writers and others when a knowledge of the detailed provisions of the complete standards is not required.

It should be particularly borne in mind by all concerned with laboratory testing that these summaries are *not intended* to be a substitute for the relevant complete standards.

2 General

The standards in IEC 60068-2 for the individual environmental tests are based on the general considerations, including definitions and guidance, to be found in IEC 60068-1. That standard gives an explanation of the method used to designate the various tests.

The uniform presentation of these summaries on a single page has resulted in varying degrees of “reduction” of original texts which themselves vary widely in length and complexity. Although, in order to facilitate the use of the summaries in this publication, the presentation has been made as consistent as possible, it should be remembered that the original texts are of different dates and are the responsibility of IEC technical committee 50 or its subcommittees.

Tolerances have been omitted from these summaries; they can be found in IEC 60068-2.

The information in 2.1, 2.2 and 2.3, although not necessarily applicable to all the summaries, is of general application.

2.1 Guidance

Many of the standards in IEC 60068-2 contain guidance on the application of the testing procedure and much of this is of particular value to specification writers and others who are not required to have a knowledge of the detailed provisions of a test. In the case of these standards, the summaries will make no specific reference to guidance.

There are other cases, for example solar radiation testing (IEC 60068-2-5), where guidance is to be found in another standard in the IEC 60068-2 series (IEC 60068-2-9 in the case of the example), or – and then described as “background information” – in a standard in the IEC 60068-3 series. In these cases, reference is made in the summary to the other standards concerned irrespective of their degree of relevance for specification writers in order that they can indicate fully in their specifications the sources of detailed information which laboratories will require. The standard will then be listed in clause 5.

2.2 Storage

Guidance on the application of tests in the IEC 60068-2 series to simulate the effects of storage, from short-term to long-term, is given in IEC 60068-2-48, to which reference should be made in appropriate cases.