

Australian/New Zealand Standard™

**Safety of household and similar  
electrical appliances—Safety**

**Part 2.6: Particular requirements for  
stationary cooking ranges, hobs, ovens  
and similar appliances  
(IEC 60335-2-6:1997, MOD)**



### **AS/NZS 3350.2.6:2006**

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee EL-002, Safety of Household and Similar Electrical Appliances and Small Power Transformers. It was approved on behalf of the Council of Standards Australia on 20 April 2008 and on behalf of the Council of Standards New Zealand on 28 April 2008.

This Standard was published on 23 June 2006.

---

The following are represented on Committee EL-002:

Australian Industry Group  
Australian Retailers Association  
Australian Electrical and Electronic Manufacturers Association  
Business New Zealand  
Consumer Electronic Suppliers Association, Australia  
Consumers' Federation of Australia  
Electrical regulatory authorities, Australia  
Electrical Compliance Testing Association  
Electrical consultants  
Electricity Supply Association of Australia  
Ministry of Economic Development, New Zealand  
New Zealand Electric Fence Energizer Manufacturers' Standards Group

---

### **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 Standards may also be withdrawn.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 joint Australian/New Zealand Standards can be found by visiting the Standards Web Shop at [www.standards.com.au](http://www.standards.com.au) or Standards New Zealand web site at [www.standards.co.nz](http://www.standards.co.nz) and looking up the relevant Standard in the on-line catalogue.

Alternatively, both organizations publish an annual printed Catalogue with full details of all current Standards. For more frequent listings or notification of revisions, amendments and withdrawals, Standards Australia and Standards New Zealand offer a number of update options. For information about these services, users should contact their respective national Standards organization.

We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Please address your comments to the Chief Executive of either Standards Australia or Standards New Zealand at the address shown on the back cover.

---

*This Standard was issued in draft form for comment as DR 05926.*

---

# Australian/New Zealand Standard™

## **Safety of household and similar electrical appliances—Safety**

### **Part 2.6: Particular requirements for stationary cooking ranges, hobs, ovens and similar appliances (IEC 60335-2-6:1997, MOD)**

Originated in Australia in part as C102—1937.  
Final Australian edition AS 3172—1990.  
Originated in New Zealand as NZSS 1910:1965.  
Previous AS/NZS 3172: 1996.  
Jointly revised and redesignated AS/NZS 3350.2.6:1998.  
Second edition AS/NZS 3350.2.6:2001.  
Third edition AS/NZS 3350.2.6:2006.  
Reissued incorporating Amendment No. 1 (December 2008).

#### **COPYRIGHT**

© Standards Australia/Standards New Zealand

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.

Jointly published by Standards Australia, GPO Box 476, Sydney, NSW 2001 and Standards New Zealand, Private Bag 2439, Wellington 6020

## CONTENTS

	Page
PREFACE .....	4
Clause	
1 Scope .....	6
2 Definitions .....	7
3 General requirement .....	9
4 General conditions for the tests .....	9
5 Void .....	10
6 Classification .....	10
7 Marking and instructions .....	10
8 Protection against access to live parts .....	14
9 Starting of motor-operated appliances .....	14
10 Power input and current .....	14
11 Heating .....	15
12 Void .....	21
13 Leakage current and electric strength at operating temperature .....	21
14 Void .....	22
15 Moisture resistance .....	22
16 Leakage current and electric strength .....	23
17 Overload protection of transformers and associated circuits .....	24
18 Endurance .....	24
19 Abnormal operation .....	24
20 Stability and mechanical hazards .....	26
21 Mechanical strength .....	27
22 Construction .....	28
23 Internal wiring .....	33
24 Components .....	33
25 Supply connection and external flexible cords .....	34
26 Terminals for external conductors .....	34
27 Provision for earthing .....	34
28 Screws and connections .....	34
29 Creepage distances, clearances and distances through insulation .....	34
30 Resistance to heat, fire and tracking .....	35
31 Resistance to rusting .....	35
32 Radiation, toxicity and similar hazards .....	35

Annexes .....	42
Annex A (normative) Normative references.....	42
Annex ZA (normative) Reduced surface temperatures .....	43
Annex ZZ (informative) Variations to IEC 60335-2-6:1997 for application in Australia and New Zealand.....	44
Figure 101 – Vessel for testing hob elements .....	37
Figure 102 – Vessel for testing induction hob elements.....	38
Figure 103 – Load for testing rotating spits.....	39
Figure 104 – Long test pin .....	40
Figure 105 – Probe for measuring surface temperature.....	40
Figure 106 – Circuit for measuring leakage current of induction hobs .....	41
Table 101 – Quantity of liquid in the vessel .....	7
Table 301 – Temperature rise limits for accessible surfaces .....	19
Table 102 – Minimum creepage distances and clearances for higher voltages.....	35
Table ZA.1       Reduced temperatures for front surfaces of oven doors .....	43
Table ZA.2       Reduced temperatures for front surfaces of oven doors of pyrolytic self-cleaning ovens when operated under cleaning conditions.....	43

## PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-002- Safety of Household and Similar Electrical Appliances and Small Power Transformers, to supersede AS/NZS 3350.2.6:2001 and its amendment 1 (May 2002), amendment 2 (November 2002), amendment 3 (November 2003) and amendment 4 (June 2005) on publication.

A1 | This Standard incorporates Amendment No. 1 (December 2008). The changes required by the amendment are indicated in the text by a marginal bar and amendment number against the clause, note, table, figure or part thereof affected. Where an application date other than immediate is applicable to an amendment the date of application (DOA) is indicated by the marginal bar against the part affected or by a footnote relating to the part affected.

The objective of this Standard is to provide manufacturers, designers, regulatory authorities, testing laboratories and similar organizations with minimum safety requirements designed to give user protection against hazards that might occur during normal operation and abnormal operation of the appliance and which may be used as the basis for approval for sale or for connection to the electricity supply mains in Australia and New Zealand.

This Standard was revised to incorporate Amendment Nos. 1, 2, 3 and 4 and to introduce clause 22.303 and to effect changes to Annex ZZ that were issued in draft form for comment as document DR 05926. It forms the third edition of AS/NZS 3350.2.6 *Safety of household and similar electrical appliances, Part 2.6: Particular requirements for stationary cooking ranges, hobs, ovens and similar appliances*. Where an application date is applicable to a clause, note, table, figure or part thereof the date of application (DOA) is indicated by a marginal bar and the date against the part affected.

This Standard is an adoption with national modifications and contains the full text of the fourth edition of IEC 60335-2-6:1997, *Safety of household and similar electrical appliances, Part 2-6: Particular requirements for stationary cooking ranges, hobs, ovens and similar appliances*, including its amendment 1 and has been varied as indicated to take account of Australian and New Zealand conditions. It is to be used in conjunction with the latest edition of AS/NZS 3350.1, *Safety of household and similar electrical appliances, Part 1: General requirements* and its Amendments. It was established on the basis of AS/NZS 3350.1:2000.

This part 2 supplements or modifies the corresponding clauses of AS/NZS 3350.1 (referred to as part 1 in this part 2) so as to convert it into the Australian/New Zealand Standard: Safety of stationary cooking ranges, hobs, ovens and similar appliances.

Where a particular subclause of part 1 is not mentioned in this part 2, that subclause applies as far as is reasonable. Where this Standard states "addition", "modification" or "replacement", the relevant text in part 1 is to be adapted accordingly.

NOTE 1 Subclauses, notes, tables and figures which are additional to those in part 1 are numbered starting from 101. Annexes, which are additional to those in part 1 are lettered AA, BB, etc.

NOTE 2 In this Standard the following print types are used:

- requirements: in arial type;
- *test specifications: in italic type;*
- notes: in small arial type;

Words **in bold** in the text are defined in clause 2. When a definition of part 1 concerns an adjective, the adjective and the associated noun are also in bold.

The numbering of clauses, subclauses, notes, tables, figures and annexes follows that of IEC 60335-2-6:1997. To allow for the introduction of additional material by the IEC, the numbers 101 to 200 have been reserved. To allow for additional material to be introduced by Australia and New Zealand, the numbers 201 to 300 are used to number further clauses, subclauses, notes, tables and figures in part 1. The numbers 301 to 400 are used to number

further clauses, subclauses, notes, tables and figures in this part 2. Additional annexes are lettered ZA, ZB and so on.

This scheme has been introduced to reduce the likelihood of the IEC and Australia and New Zealand using the same identifier for different purposes.

The use of the word VOID indicates that the IEC text is not used in Australia or New Zealand. The use of this word also avoids the need to renumber, clauses, notes, tables and figure if an earlier clause, note, table or figure is not used.

Annex A has been reformatted to indicate the Australia/New Zealand standard that is equivalent to the IEC standard or ISO standard to which normative reference is made.

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 on the cover and title page only.
- (b) In the source text "this International Standard" should read "this Australian/New Zealand Standard".

A full point substitutes for a comma when referring to a decimal marker.

Variations to IEC 60335-2-6:1997 are indicated at the appropriate places throughout this standard. Strikethrough (~~example~~) identifies IEC tables, figures and passages of text which, for the purposes of this Australian/New Zealand standard are deleted. Where Australian/New Zealand tables, figures or passages of text are added, each is set in its proper place and identified by shading (~~example~~). Added figures are not themselves shaded, but are identified by a shaded border.

Variations made to IEC 60335-2-6:1997 form the Australian variations for the purposes of the IECEE scheme for recognition of testing to standards for safety of electrical equipment (the CB scheme). These variations have been incorporated in the body of the standard. They are listed in Annex ZZ for easy reference.

# AUSTRALIA/NEW ZEALAND STANDARD

## SAFETY OF HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES

### Part 2.6: Particular requirements for stationary cooking ranges, hobs, ovens and similar appliances (IEC 60335-2-6:1997, MOD)

#### 1 Scope

This clause of part 1 is replaced by:

This standard deals with the safety of **stationary electric cooking ranges, hobs**, ovens and similar appliances for household use, their **rated voltage** being not more than 250 V for single-phase appliances connected between one phase and neutral, and 480 V for other appliances.

NOTE 1 – Examples of appliances which are within the scope of this standard:

- **stationary grills;**
- **stationary griddles;**
- **pyrolytic self-cleaning ovens;**
- **induction hobs;**
- **steam ovens;**
- the electrical part of appliances supplied with energy other than electricity.

So far as practicable, this standard deals with the common hazards presented by appliances which are encountered by all persons in and around the home.

This standard does not in general take into account

- the use of appliances by young children or infirm persons without supervision;
- playing with the appliance by young children.

#### NOTES

2 Attention is drawn to the fact that

- for appliances intended to be used in vehicles or on board ships or aircraft, additional requirements may be necessary;
- ~~– for appliances intended to be used in tropical countries special requirements may be necessary;~~
- **for the purposes of this standard, Australia and New Zealand are not considered to be tropical;**
- in many countries additional requirements are specified by the national health authorities, the national authorities responsible for the protection of labour, the national water supply authorities and similar authorities.

3 This standard does not apply to

- appliances intended exclusively for industrial purposes;
- appliances intended to be used in locations where special conditions prevail, such as the presence of a corrosive or explosive atmosphere (dust, vapour or gas);
- portable cooking appliances (IEC 60335-2-9);
- microwave cooking appliances (IEC 60335-2-25);
- commercial electric ranges, ovens and hob elements (IEC 60335-2-36);
- commercial electric griddles and griddle grills (IEC 60335-2-38);
- commercial electric forced convection ovens, steam cookers and steam convection ovens (IEC 60335-2-42).

4 Requirements for combination microwave ovens are under consideration; meanwhile IEC 60335-2-25 may be used in conjunction with this standard.