

Australian/New Zealand Standard™

**Performance of household electrical
appliances—Dishwashers**

Part 2: Energy labelling requirements



AS/NZS 2007.2:2003

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee EL-015, Quality and Performance of Household Electrical Appliances. It was approved on behalf of the Council of Standards Australia on 24 April 2003 and on behalf of the Council of Standards New Zealand on 8 May 2003. This Standard was published on 30 May 2003.

The following are represented on Committee EL-015:

Australian Association of Certification Bodies
Australian Consumers Association
Australian Electrical and Electronic Manufacturers Association
Australian Industry Group
Australian Retailers Association
Consumer Electronics Suppliers Association Australia
Department of Industrial Relations, QLD
Electrical Compliance Testing Australia
Energy Efficiency and Conservation Authority, New Zealand
Ministry of Energy and Utilities, NSW
National Appliance and Equipment Efficiency Committee
National Association of Testing Authorities
New Zealand Manufacturers Federation
Office of the Chief Electrical Inspector, VIC
Office of Technical Regulators, SA

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 Standards may also be withdrawn.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 or Standards New Zealand web site at 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 03052.

Australian/New Zealand Standard™

Performance of household electrical appliances—Dishwashers

Part 2: Energy labelling requirements

Originated as AS/NZS 2007.2:1998.
Previous edition 2000.
Third edition 2003.
Reissued incorporating Amendment No. 1 (2005).

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

PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-015, Quality and Performance of Household Electrical Appliances, to supersede AS/NZS 2007.2:2000 on publication.

This Standard incorporates Amendment No. 1 (August 2005). 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.

The AS/NZS 2007 series is comprised of two Parts, as follows:

AS/NZS

- 2007 Performance of household electrical appliances—Dishwashers
- 2007.1 Part 1: Energy consumption and performance
- 2007.2 Part 2: Energy labelling requirements (this Standard)

The overall objective of the AS/NZS 2007 series of Standards is to promote high levels of performance and energy efficiency in electric dishwashers.

The Parts of AS/NZS 2007 are summarized as follows:

- (a) *Part 1* Includes performance test procedures and minimum performance criteria for dishwashers.
- (b) *Part 2* Includes algorithms for the calculation of the energy efficiency star rating and projected energy usage, performance requirements, details of the energy label and requirements for the valid application thereof. It has been structured to be suitable for reference in regulatory legislation and to be used in conjunction with Part 1.

This edition contains the same star rating algorithms implemented in 2000 (as documented in AS/NZS 2007.2:2000). It has a new requirement for labelling on the program recommended for a normally soiled load. Part 1 of this Standard has been substantially revised including a 15 hour soil drying time and the option of using an IEC load. The change to the program recommended for a normally soiled load and retesting to the revised Part 1 will be required for all dishwashers remaining on the market after 1 April 2004. (See Note 3)

The main changes in this Part 2 Standard are as follows:

- (i) All dishwashers must be retested to the revised AS/NZS 2007.1:2003 test methods from 1 April 2004. (See Note 3.)
- (ii) This Standard now specifies the ‘normal’ program for energy labelling.

A1

Amendment 1 introduces a new application form to be used for both energy efficiency labelling and water efficiency labelling. It also introduces, for the purpose of water efficiency labelling, a requirement to enable a regulator to be able to determine date of manufacture information.

The terms ‘normative’ and ‘informative’ have been used in this Standard to define the application of the appendix to which they apply. A ‘normative’ appendix is an integral part of a Standard, whereas an ‘informative’ appendix is only for information and guidance.

Statements expressed in mandatory terms in notes to tables and figures are deemed to be requirements of this Standard.

A1

This Standard is published with the approval of the combined state regulatory authorities and is structured to be suitable for reference in energy and water efficiency labelling regulatory legislation. It refers to AS/NZS 2007.1:2003 for test procedures. AS/NZS 6400:2005 references this Standard for water efficiency labelling requirements.

From the date of publication of this Standard until 31 March 2004 regulatory authorities will approve dishwashers in accordance with either AS/NZS 2007.2:2000 or this Standard. On 1 April 2004, all registrations according to AS/NZS 2007.2:2000 will be cancelled. For these dishwashers to be sold, they are required to be re-registered in accordance with this Standard prior to 1 April 2004.

All registrations and records kept from 1 April 2004 will require test reports in accordance with AS/NZS 2007.1:2003. (See Note 3.)

Check testing, where applicable, will be undertaken to the version of the test Standard which has been used to support the current energy label for that model.

NOTES:

- 1 Given that all dishwashers on display have to be retested to the revised Part 1 standard from 1 April 2004, it is preferred that manufacturers submit the new registration applications as soon as possible after publication of this standard.
- 2 Administrative arrangements during the transition period (see Clause 4.1.4) may vary, so registration holders should contact their regulator to obtain detailed requirements with respect to labelling and registration requirements.
- 3 In New Zealand, after the date that this Standard comes into force, any testing on models newly appearing on the market must be to AS/NZS 2007.1:2003. (A notice in the New Zealand Gazette will determine that date.)

CONTENTS

	<i>Page</i>
SECTION 1 SCOPE AND GENERAL	
1.1 SCOPE	5
1.2 APPLICATION	5
1.3 OBJECTIVE.....	5
1.4 REFERENCED DOCUMENTS	5
1.5 DEFINITIONS	6
1.6 MEASURED QUANTITIES	7
1.7 ROUNDING.....	7
SECTION 2 CALCULATIONS AND ALGORITHMS FOR THE ENERGY LABEL	
2.1 GENERAL	8
2.2 NUMBER OF TESTS AND PROCESSING OF DATA.....	8
2.3 PROJECTED ANNUAL ENERGY CONSUMPTION (PAEC)	9
2.4 COMPARATIVE ENERGY CONSUMPTION (CEC).....	9
2.5 BASE ENERGY CONSUMPTION (BEC).....	10
2.6 STAR RATING INDEX (SRI)	10
2.7 STAR RATING	10
2.8 ENERGY LABEL VALIDITY	11
SECTION 3 PERFORMANCE CRITERIA	
3.1 GENERAL	12
3.2 RATED CAPACITY	12
3.3 WASHING INDEX	12
3.4 WATER CONSUMPTION.....	12
3.5 DRYING INDEX	12
SECTION 4 APPLICATION AND TEST RESULT FORMATS	
4.1 APPLICATION FOR REGISTRATION	13
4.2 HOLDING OF RECORDS	13
A1 4.3 DATE OF MANUFACTURE INFORMATION.....	14
SECTION 5 PRINTING AND PLACEMENT OF ENERGY LABELS	
5.1 PLACEMENT	15
5.2 MATERIAL AND SHAPE.....	15
5.3 COLOURS	15
5.4 ALTERNATIVE WATER CONNECTION MODE DETAILS	15
5.5 LABEL REQUIREMENTS	15
5.6 SAMPLE LABEL.....	18
APPENDICES	
A EXAMPLE OF ENERGY EFFICIENCY CALCULATIONS	19
B ENERGY LABEL DIMENSIONS	22
A1 C FORMAT OF APPLICATION FOR REGISTRATION OF A DISHWASHER FOR ENERGY EFFICIENCY LABELLING AND WATER EFFICIENCY LABELLING	23

STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

Australian/New Zealand Standard
Performance of household electrical appliances—Dishwashers

Part 2: Energy labelling requirements

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard specifies the energy labelling requirements for electric **dishwashers** intended for household and similar use. This Standard does not specify safety requirements.

In particular, this Standard specifies the following:

- (a) **Program** to be used for energy labelling.
- (b) **Water connection mode.**
- (c) **Projected annual energy consumption.**
- (d) **Comparative energy consumption.**
- (e) **Star Rating Index.**
- (f) **Star rating.**
- (g) Some of the requirements for energy label validity.
- (h) Performance criteria for energy labelling.
- (i) Printing requirements for **dishwasher** energy labels.
- (j) Format for the application for registration for energy efficiency labelling and water efficiency labelling.

A1

1.2 APPLICATION

This Standard **shall** be read in conjunction with AS/NZS 2007.1:2003.

1.3 OBJECTIVE

The objective of this Standard is to define performance and energy labelling requirements, which **shall** be met such that a **dishwasher** can carry a valid energy efficiency label.

1.4 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS	
2706	Numerical values—Rounding and interpretation of limiting values
AS/NZS	
2007	Performance of household electrical appliances—Dishwashers
2007.1:1998	Part 1: Energy consumption and performance
2007.1:2003	Part 1: Energy consumption and performance
2007.2:2000	Part 2: Energy labelling requirements
6400:2005	Water efficient products—Rating and labelling

A1