

Please Consultate: SF, MIC, AP, ~~16~~ ~~21~~

STANDARDS ASSOCIATION
OF AUSTRALIA

Date 87 04 29 File No.

Memo. by SUSAN To ALL

Re Letter AS 2575 of date

Aleks Szann advised that the star rating on electrical appliances is supplementary to the requirements for energy consumption labelling in the Australian std AS 2575.2. He said it was developed between the NSW Energy Authority and the Victorian authority. ALEKS said to refer calls to them

Susan

see also AS 2575 - 1982

AS 2575.2—1986

UDC [620.9+621.317.385]:621.798.6

Use 621.317.385-777.9:64.06

Australian Standard® 2575.2—1986

NZS 6205.2:1988 partly based on this

ENERGY CONSUMPTION LABELLING OF HOUSEHOLD APPLIANCES

Part 2—REFRIGERATORS, *2.1* REFRIGERATOR, FREEZERS AND FREEZERS— LABELLING AND DETERMINATION OF ENERGY CONSUMPTION



STANDARDS ASSOCIATION OF AUSTRALIA
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This Australian standard was prepared by Committee EN/2, Energy Consumption Labelling of Household Appliances. It was approved on behalf of the Council of the Standards Association of Australia on 8 April 1986 and published on 5 May 1986.

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Australian Electrical and Electronic Manufacturers Association Limited
Australian Federation of Consumer Organizations, Inc.
Australian Gas Association
Australian Liquefied Petroleum Gas Association
Australian Retailers Association
Confederation of Australian Industry
Consumer Electronics Suppliers Association
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Department of Consumer Affairs, N.S.W.
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AUSTRALIAN STANDARD

**ENERGY CONSUMPTION LABELLING
OF HOUSEHOLD APPLIANCES**

**Part 2
REFRIGERATORS,
REFRIGERATOR/FREEZERS,
AND FREEZERS—
LABELLING AND
DETERMINATION OF ENERGY
CONSUMPTION**

AS 2575.2—1986

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PREFACE

This standard was prepared by the Association's Subcommittee EN/2/2, Energy Consumption Labelling of Refrigerators, Refrigerator/Freezers, and Freezers, on behalf of the Association's main Committee EN/2, Energy Consumption Labelling of Household Appliances.

Other standards in this series include the following:

Part 1—Label and Labelling Requirements*

Part 3—Water Heaters, Electric or Gas—Determination of Energy Consumption †

Where the conditions are appropriate (see AS 2575.1*), it is intended that this series be progressively extended to cover energy consumption of other major household appliances such as space heaters (electric and gas), refrigerative air-conditioners, and dishwashers.

* Revision of AS 2575—1982, Energy Consumption—Guide to the Labelling of Products, in course of preparation.

† In course of preparation.

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FOREWORD

In the development of this standard, it was intended that, wherever possible, the equipment and procedures specified in this standard and AS 1430, Household Refrigerators and Freezers, should be compatible. Essentially this standard allows assessment of those refrigerators that are capable of complying with the pull-down temperature requirements and the performance temperature requirements specified in AS 1430. Refrigerators that cannot comply with those requirements will *not* be eligible for an energy consumption label. This is because the information on a label attached to a refrigerator that does *not* comply with AS 1430 would not be directly comparable, and indeed would probably be misleading if it were compared, with the information on a label attached to a refrigerator that does comply with that standard.

Although it was intended that the test conditions in this standard and AS 1430 be comparable, differences do occur. For example, the test procedure in this standard unlike that specified in AS 1430, does not require the frozen-food compartment, if provided, to be loaded with test packs during testing. The reasons for leaving out test packs from this standard are as follows:

- (a) It was believed that for most refrigerators, no significant difference in the energy consumptions exists between a loaded refrigerator and an unloaded refrigerator.
- (b) The time required for testing a refrigerator for energy consumption was substantially reduced when the refrigerator was tested unloaded.
- (c) The determination of energy consumption with an unloaded refrigerator is consistent with practices overseas, e.g. Canada.

Further, because test packs are not required in this standard, the locations of the air temperature-measuring instruments in the frozen-food compartment, if provided, are different to those specified in AS 1430.

Also, it will be noted that, where the refrigerator has a fresh-food compartment, the energy consumption of that refrigerator is determined at a fresh-food compartment reference temperature of 3°C. However, to comply with the performance requirements of AS 1430, the fresh-food compartment need only attain a temperature of 6°C. Despite this difference in temperature requirements, it is nevertheless believed that if a refrigerator complies with the performance temperature requirements of AS 1430, that refrigerator should also be capable of attaining the temperature requirements specified in this standard. The reference temperature of 3°C was selected for the determination of energy consumption of the refrigerator because it was believed that most fresh-food compartments in household refrigerators would be operated at that temperature. Further, the 3°C temperature correlates more closely with the fresh-food compartment temperature required for the calculation of energy consumption of refrigerators and refrigerator/freezers in some overseas standards.

An ambient temperature of 32°C was selected for the test procedure because this simulated a refrigerator positioned in a typical kitchen with an ambient temperature of about 25°C and the appliance door(s) being opened several times during the test period.

Where energy consumption information is used for evaluating refrigerators, it is stressed that only like refrigerators (i.e. similar internal volumes, identical AS 1430 classification, e.g. frost-free, automatic defrost or manual, etc) should be compared.

As to the method in which the energy consumption of an appliance is determined, it will be noted that the graphical procedure used is one of interpolation of results. This is because interpolation is considered to be a more precise and a more meaningful method than extrapolation methods which are used in countries such as Canada.

STANDARDS ASSOCIATION OF AUSTRALIA

Australian Standard

for

ENERGY CONSUMPTION LABELLING OF HOUSEHOLD APPLIANCES

PART 2—REFRIGERATORS, REFRIGERATOR/FREEZERS, AND FREEZERS—
LABELLING AND DETERMINATION OF ENERGY CONSUMPTION

SPECIFICATION

1 SCOPE. This standard specifies requirements for energy consumption labelling together with a test method for determining the energy consumption of household electric refrigerators, refrigerator/freezers, and freezers of the vapour-compression type.

2 APPLICATION. This standard applies to household electric refrigerators, refrigerator/freezers, and freezers that are capable of complying with the pull-down requirements and the temperature performance requirements specified in AS 1430.

NOTE: See remarks in the Foreword.

3 REFERENCED DOCUMENTS. The following standards are referred to in this standard:

- AS 1430 Household Refrigerators and Freezers
AS 2700S Colour Standard for General Purposes (Swatch)
BS 2961 Typeface Nomenclature and Classification

4 DEFINITIONS. For the purpose of this standard, the definitions in AS 1430 apply.

5 LABEL AND LABELLING REQUIREMENTS.

NOTE: An example of an energy consumption label for a refrigerator/freezer is illustrated in Appendix A.

5.1 General. The energy consumption label shall—

- measure approximately 90 mm × 120 mm;
- have its front surface coloured substantially similar to Wattle Y12 as specified in AS 2700S; and
- have its back surface coated with a pressure-sensitive adhesive such that when the label is attached and then removed from the surface of an appliance the label shall not be transferable to another appliance and there shall be no damage to the surface from which the label was detached.

NOTE: Pantone 116C is substantially similar in colour to Wattle Y12 specified in AS 2700S.

5.2 Labelling information.

NOTES:

Suitable typefaces for printing information on to the label are HELVETICA, UNIVERS, and MEGARON.

- The requirement that the print be monoline, roman, and lineale basically means that the print should be such that all strokes of the letters and figures (i.e. numbers) should be of equal thickness, non-italic, and sans serif. Also, the term 'medium width' refers to the width of 'normal' print from which variants (e.g. condensed, expanded) may be derived. Similarly, the term 'medium weight' refers to the weight (that is, the degree of blackness) of 'normal' print from which variants (e.g. light, bold) may be derived. The definition of each of these terms is given in BS 2961.

The following information shall be printed on the front of each label, in black, monoline, roman, lineale, and medium width print that is clear and legible:

- The term 'BRAND' in print of light weight capital letters, followed by the actual brand name of the appliance in bold weight capital letters, wherein each of the capital letters has a height of not less than 2.0 mm.

NOTE: Print that has capital letters which are 2.0 mm in height may be achieved by a type size of 10 points.

- The term 'MODEL' followed by the actual model code of the appliance, in print of light weight capital letters or figures or both that have a height of not less than 2.0 mm.

NOTE: See Note to (a) above.

- The type of appliance, e.g. whether the appliance is 'MANUAL DEFROST', 'CYCLIC DEFROST' or 'FROST FREE', or the appropriate class of the appliance in print of bold weight capital letters or capital letters and a figure having a height of not less than 2.0 mm.

NOTES:

- The appropriate class of an appliance is described in Table 1.1 of AS 1430.
- See Note to (a) above.

- The capacity of the appliance expressed as the heading 'VOLUME (litres)', printed in light weight letters wherein each of the capital letters has a height of not less than 2.0 mm, together with—

- where a fresh-food compartment is provided, the term 'Refrigerator' followed by a number representing the rated gross volume of the refrigerator (fresh-food) compartment as determined in accordance with AS 1430, in print of light weight letters and figures wherein the capital letter and number characters have a height of not less than 2.0 mm;

- where a frozen-food compartment is provided, the term 'Freezer' followed by a number representing the rated gross volume of the freezer (frozen-food) compartment as determined in accordance with AS 1430, in print of bold weight letters and figures wherein the capital letter and figures have a height of not less than 2.0 mm; or

- where fresh-food and frozen-food compartments are provided, the term 'TOTAL' followed by a number representing the sum of the rated gross-volumes of the refrigerator and freezer volumes as determined in (i) and