



# **Greenhouse and Energy Minimum Standards (Rotary Clothes Dryers) Determination 2012<sup>1</sup>**

*Greenhouse and Energy Minimum Standards Act 2012*

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I, MARK DREYFUS, Parliamentary Secretary for Climate Change and Energy Efficiency, make this Determination under section 23 of the *Greenhouse and Energy Minimum Standards Act 2012*.

Dated 25 October 2012

MARK DREYFUS

Parliamentary Secretary for Climate Change and Energy Efficiency

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## 1 Name of Determination

This Determination is the *Greenhouse and Energy Minimum Standards (Rotary Clothes Dryers) Determination 2012*.

## 2 Commencement

This Determination comes into force on the day after it is registered.

## 3 Definitions

In this Determination:

*Act* means the *Greenhouse and Energy Minimum Standards Act 2012*.

*AS/NZS 2442.1:1996* means *Australian/New Zealand Standard 2442.1:1996 Performance of household electrical appliances – Rotary clothes dryers – Part 1: Energy consumption and performance*, as it existed on the date this Determination came into force.

*Note 1:* AS/NZS 2442.1:1996 is available from Standards Australia Limited.

*Note 2:* AS/NZS 2442.1:1996 includes all amendments up to and including AS/NZS 2442.1:1996/Amdt 4:2006 made on 8 September 2006.

*AS/NZS 2442.2:2000* means *Australian/New Zealand Standard 2442.2:2000 Performance of household electrical appliances – Rotary clothes dryers – Part 2: Energy labelling requirements*, as it existed on the date this Determination came into force.

*Note 1:* AS/NZS 2442.2:2000 is available from Standards Australia Limited.

*Note 2:* AS/NZS 2442.2:2000 includes all amendments up to and including AS/NZS 2442.2:2000/Amdt 2:2007 made on 30 April 2007.

*Australian Standard* means a standard that is published by Standards Australia Limited denoted by the letters "AS" and identifying numbers and/or letters.

*Australian/New Zealand Standard* means a standard that is jointly published by Standards Australia Limited and Standards New Zealand, is applicable in both countries and denoted by the letters "AS/NZS" and identifying numbers and/or letters.

*condenser rotary clothes dryer* means an electric clothes dryer by which the moisture from the air within the clothes dryer is converted to a liquid and the liquid is drained or stored for later removal.

*Note:* This is the same meaning as 'condenser electric rotary clothes dryer' in subclause 1.4.4 of AS/NZS 2442.1:1996.

*control mechanism* means the mechanism by which the operation of a dryer is terminated, being one of the following mechanisms:

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- (a) autosensing – the clothes drying is stopped by a system within the dryer that can determine, directly or indirectly, the moisture content of the load;
- (b) manual – the clothes drying must be stopped by hand; or
- (c) timer – the clothes drying is stopped by a timer.

*Note:* This is the same meaning as ‘Dryer control mechanisms’ in subclause 1.4.3 of AS/NZS 2442.1:1996.

***dryer type*** means a vented rotary clothes dryer or a condenser rotary clothes dryer

*Note:* This is the same meaning as in subclauses 1.4.4 of AS/NZS 2442.1:1996.

***rotary clothes dryer*** means an appliance, for the tumble-drying of clothing, which is one of the following:

- (a) a condenser rotary clothes dryer;
- (b) a vented rotary clothes dryer; or
- (c) the drying function of an appliance which includes both washing and clothes drying functions and in which the drying function operates by the same method as a condenser rotary clothes dryer or vented rotary clothes dryer.

*Note:* This definition reflects the scope specified in clause 1.1 of AS/NZS 2442.2:2000 and clause 1.1 of AS/NZS 2442.1:1996.

***standard*** means an Australian Standard, an Australian/New Zealand Standard or any other equivalent document.

***tumble-drying*** (of clothing) means drying by passing air through an item while it is being tumbled.

*Note:* This is the same meaning as in subclauses 1.4.4 (a) and 1.4.4 (b) of AS/NZS 2442.1:1996.

***vented rotary clothes dryer*** means a electric clothes dryer by which the air and accumulated moisture is discharged into the atmosphere.

*Note:* This is the same meaning as ‘vented electric rotary clothes dryer’ in subclause 1.4.4 of AS/NZS 2442.1:1996.

*Note:* Several other words and expressions used in this Determination have the meaning given by section 5 of the Act. For example:

- category A product
- covered by
- family of models
- GEMS
- GEMS labelling requirements
- GEMS level requirements
- model
- product classes
- supply

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## 4 Interpretation

### *Applicable definitions of terms or phrases*

- (1) If a term or phrase is not defined under the Act, the Regulations to the Act or in this Determination, but the term is defined in a standard mentioned specifically in section 3 of this Determination, the term or phrase is to be read for the purposes of this Determination as having the meaning of the term under the relevant standard.

*Note:* Notwithstanding this, for convenience to users, the key terms for ascertaining if a product is covered by this Determination are defined in this Determination.

### *Applicable version of documents incorporated into standards*

- (2) For the purposes of this Determination the applicable version of any document, including a standard, that:
  - (a) is referred to in a standard under the heading 'Referenced Documents', or under an equivalent heading in a standard; and
  - (b) must be applied to give effect to this Determination or a standard referred to in this Determination,

is the version of the document that existed at the date this Determination came into force.

*Note:* For example clause 3.4 of AS/NZS 2442.2:2000 requires clothes dryers meet the maximum energy performance requirements set out in section 4 of AS/NZS 2442.1:1996. The applicable version of AS/NZS 2442.1:1996 is the version that existed at the date this Determination comes into force.

## 5 Specified product class covered by this Determination

- (1) This Determination covers rotary clothes dryers that are ordinarily supplied and used for personal, domestic or household use, and which use a control mechanism.

*Note:* This Determination covers household rotary clothes dryers irrespective of the context in which they are used. For example, this Determination covers household rotary clothes dryers used in a commercial context.

*Note:* This subsection reflects the scope specified in clause 1.1 of AS/NZS 2442.2:2000 and clause 1.1 of AS/NZS 2442.1:1996.

- (2) The products covered by this Determination form a single product class for the purposes of the Act.

## 6 GEMS level requirements

### *Energy use and greenhouse gas production*

- (1) For paragraphs 24 (1) (a) and 25 (a) of the Act, the specified requirements for energy use are the requirements mentioned in clause 4.4 of AS/NZS 2442.1:1996.

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### *Conducting tests*

- (2) Subject to subsections 6 (3) to 6 (5) of this Determination, for paragraphs 24 (1) (a) and 25 (b) of the Act, the specified requirements for conducting tests are the requirements mentioned in section 2 of AS/NZS 2442.2:2000.
- (3) For subsection 6 (2) of this Determination, the garments specified in Part 1 of Schedule 1 of this Determination may be used as an alternative standard mixed cotton test load to that specified in Table E1 of Appendix E of AS/NZS 2442.1:1996, provided that the load make up is in accordance with Table E2 of Appendix E of AS/NZS 2442.1:1996.

*Note:* The total mass of the load when using the alternative load specification in Part 1 of Schedule 1 and the load make up in accordance with this subsection is on average 3.2 percent higher than the approximate bone dry mass listed in column 2 Table E2 of Appendix E of AS/NZS 2442.1:1996. This is slightly higher than the original load specified in AS/NZS 2442.1:1996 but is considered to be within acceptable limits considering that the mass of the load items is measured when they are new and some loss of mass is expected over the life of the load items.

- (4) For subsection 6 (2) of this Determination, where rotary clothes dryers have both timer and autosensing control mechanisms, AS/NZS 2442.1:1996 applies as follows:
  - (a) the determination of moisture removal and energy consumption must be tested on the supplier's nominated autosensing program not in accordance with clause 2.2 of the standard; and
  - (b) the requirements of clause 2.3 of the standard and the test set out in clause D 2.4 of Appendix D of the standard must be met when using both the timer and autosensing control mechanisms.
- (5) For subsection 6 (2) of this Determination, where rotary clothes dryers have a mechanism that prevents access to their load for the purpose of weighing the load immediately prior to the commencement of the cool-down period (commonly called an 'interlock') then clause B 3.2 of Appendix B of AS/NZS 2442.1:1996 does not apply and any energy and water used up to the point where the load becomes accessible again must be included in the tests conducted in accordance with subsection 6 (2).

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## 7 GEMS labelling requirements

### *Labelling and communication requirements*

- (1) For paragraphs 24 (1) (b), 26 (1) (a) and 26 (1) (b) of the Act, the GEMS labelling and communication requirements are the requirements mentioned in sections 2 and 5 of AS/NZS 2442.2:2000.

### *Conducting tests*

- (2) Subject to subsections 7 (3) to 7 (5) of this Determination, for paragraph 26 (1) (c) of the Act, the specified requirements for conducting tests are the requirements mentioned in sections 2 and 4 of AS/NZS 2442.1:1996.
- (3) For subsection 7 (2) of this Determination, the garments specified in Part 1 of Schedule 1 of this Determination may be used as an alternative standard mixed cotton test load to that specified in Table E1 of Appendix E of AS/NZS 2442.1:1996, provided that the load make up is in accordance with Table E2 of Appendix E of AS/NZS 2442.1:1996.

*Note:* The total mass of the load when using the alternative load specification in Part 1 of Schedule 1 and the load make up in accordance with this subsection is on average 3.2 percent higher than the approximate bone dry mass listed in column 2 Table E2 of Appendix E of AS/NZS 2442.1:1996. This is slightly higher than the original load specified in AS/NZS 2442.1:1996 but is considered to be within acceptable limits considering that the mass of the load items is measured when they are new and some loss of mass is expected over the life of the load items.

- (4) For subsection 7 (2) of this Determination, where rotary clothes dryers have both timer and autosensing control mechanisms, AS/NZS 2442.1:1996 applies as follows:
  - (a) the determination of moisture removal and energy consumption must be tested on the supplier's nominated autosensing program not in accordance with clause 2.2 of the standard; and
  - (b) the requirements of clause 2.3 of the standard and the test set out in clause D 2.4 of Appendix D of the standard must be met when using both the timer and autosensing control mechanisms.
- (5) For subsection 7 (2) of this Determination, where rotary clothes dryers have a mechanism that prevents access to their load for the purpose of weighing the load immediately prior to the commencement of the cool-down period (commonly called an 'interlock') then clause B 3.2 of Appendix B of AS/NZS 2442.1:1996 does not apply and any energy and water used up to the point where the load becomes accessible again must be included in the tests conducted in accordance with subsection 7 (2).

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## 8 Other GEMS requirements

### *Product performance*

- (1) For subsection 24 (2) and paragraph 27 (1) (b) of the Act, the specified requirements relating to the performance are the requirements mentioned in:
  - (a) clause 3.2 of AS/NZS 2442.2:2000 (Drying Clothes in a Single Operation); and
  - (b) clause 3.3 of AS/NZS 2442.2:2000 (Maximum Fabric Temperature).

### *Conducting tests*

- (2) Subject to subsections 8 (3) to 8 (5) of this Determination, for subsection 24 (2) and paragraph 27 (1) (e) of the Act, the specified requirements for conducting tests in relation to paragraph 27 (1) (b) are the requirements mentioned in section 2 of AS/NZS 2442.1:1996.
- (3) For subsection 8 (2) of this Determination, the garments specified in Part 1 of Schedule 1 of this Determination may be used as an alternative standard mixed cotton test load to that specified in Table E1 of Appendix E of AS/NZS 2442.1:1996, provided that the load make up is in accordance with Table E2 of Appendix E of AS/NZS 2442.1:1996.

*Note:* The total mass of the load when using the alternative load specification in Part 1 of Schedule 1 and the load make up in accordance with this subsection is on average 3.2 percent higher than the approximate bone dry mass listed in column 2 Table E2 of Appendix E of AS/NZS 2442.1:1996. This is slightly higher than the original load specified in AS/NZS 2442.1:1996 but is considered to be within acceptable limits considering that the mass of the load items is measured when they are new and some loss of mass is expected over the life of the load items.

- (4) For subsection 8 (2) of this Determination, where rotary clothes dryers have both timer and autosensing control mechanisms, AS/NZS 2442.1:1996 applies as follows:
  - (a) the determination of moisture removal and energy consumption must be tested on the supplier's nominated autosensing program not in accordance with clause 2.2 of the standard; and
  - (b) the requirements of clause 2.3 of the standard and the test set out in clause D 2.4 of Appendix D of the standard must be met when using both the timer and autosensing control mechanisms.

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- (5) For subsection 8 (2) of this Determination, where rotary clothes dryers have a mechanism that prevents access to their load for the purpose of weighing the load immediately prior to the commencement of the cool-down period (commonly called an 'interlock') then clause B 3.2 of Appendix B of AS/NZS 2442.1:1996 does not apply and any energy and water used up to the point where the load becomes accessible again must be included in the tests conducted in accordance with subsection 8 (2).

## **9 Families of models**

For section 28 of the Act, the specified circumstances in which 2 or more models from a single product class covered by this Determination are in the same family of models, are the circumstances mentioned in subclause 1.5.11 of AS/NZS 2442.2:2000.

## **10 Product categories**

For section 29 of the Act, the products covered by this Determination are category A products.

# Schedule 1 Variations to operation of AS/NZS 2442.1:2005

(subsections 6 (3) to 6 (5), subsections 7 (3) to 7 (5) and subsections 8 (3) to 8(5))

## Part 1 Alternative standard mixed cotton test load

TEST LOAD COMPONENT ITEMS						
Load Item	Target bone dry mass (kg)	Approx nominal mass (kg)	Material	Colour	Approx size (cm)	Remarks
Sheets	0.73	0.77	Cotton sheeting	White	180 x 240	Flat, 170 gsm material
Bath towels	0.33	0.35	Cotton terry	White	60 x 120	Rectangular
Tablecloths	0.24	0.25	Cotton sheeting	White	117 x 117	Flat, 170 gsm material
Shirts	0.20	0.21*	Polyester/cotton *	White	41	Long sleeve, men's
T-shirts	0.15	0.16	Cotton interlock	White	115 (3XL)	Raglan sleeve
Pillow cases	0.13	0.14	Cotton sheeting	White	50 x 75	Flat, 170 gsm material
Undershorts	0.090	0.095	Cotton interlock	White	Waist 95 - 100	
Wash cloths	0.060	0.065	Cotton terry	White	33 x 33	
Handkerchiefs	0.014	0.015	Cotton	White	40 x 43	

\*The shirt material should be a cross-linked polyester/cotton in the ratio 65/35% respectively. Nominal mass to bone dry mass ratio for polyester/cotton is lower than for plain cotton.

### NOTES:

- The mass in the table (above) is the expected nominal average mass and target bone dry mass for new items prior to any pre-conditioning runs. Individual load items may vary in mass according to slight variations in size and changes in style, e.g. shape of collar on shirts. It is expected that the actual mass of load items will decline gradually with an increase in the number of test cycles. The expected loss of mass over the life of a load item is of the order of 5 percent. The mass of each item should be checked prior to use.
- To minimise variations in test results, it is recommended that a list of suppliers who have nominated that they can supply test materials used for evaluating machines under test to be obtained from the sources referred to at the Energy Rating website (<http://www.energyrating.gov.au>). For the purpose of check testing appliances the test materials will be obtained from those sources.

The suppliers listed on the website neither are endorsed by this Determination nor are their products certified to meet the specification requirements within this Determination. Purchasers of these materials should seek all necessary documentation from suppliers to ensure that the purchased product meets the specifications within this Determination.

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**Note**

1. All legislative instruments and compilations are registered on the Federal Register of Legislative Instruments kept under the *Legislative Instruments Act 2003*. See <http://www.frli.gov.au>.