



TE TARI TIAKI PŪNGAO  
ENERGY EFFICIENCY & CONSERVATION AUTHORITY

Greenhouse and Energy  
Minimum Standards Regulator

# **GREENHOUSE AND ENERGY MINIMUM STANDARDS (GEMS) PRODUCT REGISTRATION APPLICATION QUESTIONS**

## **CLOTHES WASHERS**

### **NEW ZEALAND**

**Per AS/NZS 2040.2:2005**

**August 2019**

**This form is designed for applicants' internal use only, not for submitting applications to the GEMS Regulator.**

**All applications for product registration must be submitted to the Regulator via the online registration database at <https://reg.energyrating.gov.au>.**

**The Regulator cannot accept any applications in hard copy.**

**Note that this form may be updated from time to time to reflect changes to the registration database and it is the applicant's responsibility to ensure they are using the latest version.**

**Any question with an asterisk (\*) next to it is mandatory.**

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## VERSION CONTROL

| <b>Revision Date</b> | <b>Version</b> | <b>Summary of Changes</b> |
|----------------------|----------------|---------------------------|
| 30 August 2019       | 1.1            | EECA logo updated.        |
| 24 March 2017        | 1.0            | Document finalised.       |
| 28 February 2017     | 0.1            | Initial document created. |

# **MODELS AND MANUFACTURER**

## **Product Model Information**

Fill in one of the two boxes below, depending on if the product being registered is a single model or a family of models.

### **FOR SINGLE MODELS**

Model Number:\* \_\_\_\_\_ Brand:\* \_\_\_\_\_

### **FOR FAMILY OF MODELS**

What is the family name of the models covered by this application?\*

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Please provide details for each model covered by this registration:

**#1**

Model Number:\* \_\_\_\_\_

Brand:\* \_\_\_\_\_

**#2**

Model Number:\* \_\_\_\_\_

Brand:\* \_\_\_\_\_

**#3**

Model Number:\* \_\_\_\_\_

Brand:\* \_\_\_\_\_

**#4**

Model Number:\* \_\_\_\_\_

Brand:\* \_\_\_\_\_

**#5**

Model Number:\* \_\_\_\_\_

Brand:\* \_\_\_\_\_

**#6**

Model Number:\* \_\_\_\_\_

Brand:\* \_\_\_\_\_

**#7**

Model Number:\* \_\_\_\_\_

Brand:\* \_\_\_\_\_

**#8**

Model Number:\* \_\_\_\_\_

Brand:\* \_\_\_\_\_

**#9**

Model Number:\* \_\_\_\_\_

Brand:\* \_\_\_\_\_

**#10**

Model Number:\* \_\_\_\_\_

Brand:\* \_\_\_\_\_

## Manufacturing Information

Tick if the product is manufactured in-house

Please provide the following information on the manufacturer if the product is not manufactured in-house. Additional fields are included if there are more than one manufacturer for this product.

**Manufacturer Name:\*** \_\_\_\_\_

**Manufacturer ABN or Company Number:\*** \_\_\_\_\_

**Name of Contact Person:\*** \_\_\_\_\_

**Company Phone:\*** \_\_\_\_\_ **Company Fax:** \_\_\_\_\_

**Company Email:\*** \_\_\_\_\_ **Company Website:** \_\_\_\_\_

**Street Address:\*** \_\_\_\_\_

**Suburb/Region:\*** \_\_\_\_\_ **Postal Code:\*** \_\_\_\_\_ **State/Region:** \_\_\_\_\_

**Country:\*** \_\_\_\_\_

Is postal address the same as the street address?  Yes  No

**If you have ticked No, please complete the postal address fields below:**

**Postal Address:** \_\_\_\_\_

**Suburb/Region:\*** \_\_\_\_\_ **Postal Code:\*** \_\_\_\_\_ **State/Region:** \_\_\_\_\_

**Country:\*** \_\_\_\_\_

### **Second Manufacturer**

If applicable, who is the second manufacturer?

**Manufacturer Name:\*** \_\_\_\_\_

**Manufacturer ABN or Company Number:\*** \_\_\_\_\_

**Name of Contact Person:\*** \_\_\_\_\_

**Company Phone:\*** \_\_\_\_\_ **Company Fax:** \_\_\_\_\_

**Company Email:\*** \_\_\_\_\_ **Company Website:** \_\_\_\_\_

**Street Address:\*** \_\_\_\_\_

**Suburb/Region:\*** \_\_\_\_\_ **Postal Code:\*** \_\_\_\_\_ **State/Region:** \_\_\_\_\_

Country:\* \_\_\_\_\_

Is postal address the same as the street address?  Yes  No

**If you have ticked No, please complete the postal address fields below:**

Postal Address: \_\_\_\_\_

Suburb/Region:\* \_\_\_\_\_ Postal Code:\* \_\_\_\_\_ State/Region: \_\_\_\_\_

Country:\* \_\_\_\_\_

### **Third Manufacturer**

If applicable, who is the third manufacturer?

Manufacturer Name:\* \_\_\_\_\_

Manufacturer ABN or Company Number:\* \_\_\_\_\_

Name of Contact Person:\* \_\_\_\_\_

Company Phone:\* \_\_\_\_\_ Company Fax: \_\_\_\_\_

Company Email:\* \_\_\_\_\_ Company Website: \_\_\_\_\_

Street Address:\* \_\_\_\_\_

Suburb/Region:\* \_\_\_\_\_ Postal Code:\* \_\_\_\_\_ State/Region: \_\_\_\_\_

Country:\* \_\_\_\_\_

Is postal address the same as the street address?  Yes  No

**If you have ticked No, please complete the postal address fields below:**

Postal Address: \_\_\_\_\_

Suburb/Region:\* \_\_\_\_\_ Postal Code:\* \_\_\_\_\_ State/Region: \_\_\_\_\_

Country:\* \_\_\_\_\_

In what country/countries is this product manufactured?\*

\_\_\_\_\_  
\_\_\_\_\_

**How can the date of manufacture be determined from permanent markings on the appliance?\***  
**- Please tick accordingly and if required, provide further information**

From a date permanently marked on the rating plate in a non-encrypted format

**Provide an example of the date format:**

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From a date permanently marked on the rating plate in an encrypted format

**Describe how the date of manufacture can be determined from the markings on the appliance:**

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From another form of permanent marking on the product

**Describe how the date of manufacture can be determined from the markings on the appliance:**

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No date mark

## **Sale Information**

**In what country/countries will this product be sold?\*** (please tick one or both, if required)

Australia

New Zealand

**When will this product be (or when was this product) first available for purchase?\***

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## **LABS & TEST REPORTS**

Is a test report provided?\*

Yes – a test report is provided (please ensure test report is provided with this form)

**If you ticked yes, please answer the questions below:**

What test standard was used?\* (please tick one)

AS/NZS 2040.1:2005/Amdt 3:2010

Which laboratory performed the testing?\* - please provide name of laboratory, type of lab (independent or own lab), and street and/or postal address.

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*Please provide details for each test report, if multiple test reports are provided.*

Test Report Number:\* \_\_\_\_\_

Report Signatory:\* \_\_\_\_\_

Test Date:\* \_\_\_\_\_

Test Unit Serial Number: \* \_\_\_\_\_

No – no test report available but registration details containing test relevant to this product provided

**If you ticked 'no test report available, but registration details provided', please answer the question below:**

Registration number of the unit whose test forms the basis of this application\*:

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Comments regarding the product, the test procedure or test results that should be taken into account when assessing the product for compliance:

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## APPLIANCE DETAILS

Appliance Dimensions: Width: \_\_\_\_\_ mm Height: \_\_\_\_\_ mm Depth: \_\_\_\_\_ mm

Clothes washing machine type:\* (please tick one)  Drum  Non drum

***If you ticked 'Non drum' in the previous question, please answer the following question:***

Clothes washing machine action: (please tick one)

Agitator  Impeller  Jet  Bubble  Nutator  Other: \_\_\_\_\_

Clothes washing machine loading:\* (please tick one)

Front  Top  Twin tub  Other:: \_\_\_\_\_

Is this model a combination washer-dryer?\*  Yes  No

Does this model contain more than one washing compartment?\*  Yes  No

Name of program used in cold wash tests: \_\_\_\_\_

Cold wash program description to be noted on the energy efficiency label:

\_\_\_\_\_

Name of program for energy efficiency labelling used in warm wash tests:\*

\_\_\_\_\_

Confirm that the program nominated above is the one recommended for a normally soiled load equal to the rated load capacity in the product literature\*

Yes  No

Is the program specified above named 'normal' or one that implies normal?\*

Yes  No

Confirm that the appliance has no other program available that is named 'normal' or one that implies normal\* (only required if you answered No to 'Is the program specified above named normal or one that implies normal?')

Yes  No



**Rated load capacity:\* (please tick one)**

- |                                  |                                 |                                  |                                  |                                  |                                 |                                  |                                 |
|----------------------------------|---------------------------------|----------------------------------|----------------------------------|----------------------------------|---------------------------------|----------------------------------|---------------------------------|
| <input type="checkbox"/> 1kg     | <input type="checkbox"/> 1.5 kg | <input type="checkbox"/> 2 kg    | <input type="checkbox"/> 2.5 kg  | <input type="checkbox"/> 3 kg    | <input type="checkbox"/> 3.5 kg | <input type="checkbox"/> 4.kg    | <input type="checkbox"/> 4.5 kg |
| <input type="checkbox"/> 5 kg    | <input type="checkbox"/> 5.5 kg | <input type="checkbox"/> 6 kg    | <input type="checkbox"/> 6.5 kg  | <input type="checkbox"/> 7 kg    | <input type="checkbox"/> 7.5 kg | <input type="checkbox"/> 8 kg    | <input type="checkbox"/> 8.5 kg |
| <input type="checkbox"/> 9 kg    | <input type="checkbox"/> 9.5 kg | <input type="checkbox"/> 10 kg   | <input type="checkbox"/> 10.5 kg | <input type="checkbox"/> 11 kg   | <input type="checkbox"/> 12 kg  | <input type="checkbox"/> 12.5 kg | <input type="checkbox"/> 13 kg  |
| <input type="checkbox"/> 13.5 kg | <input type="checkbox"/> 14 kg  | <input type="checkbox"/> 14.5 kg | <input type="checkbox"/> 15 kg   | <input type="checkbox"/> 15.5 kg | <input type="checkbox"/> 16 kg  | <input type="checkbox"/> 16.5 kg | <input type="checkbox"/> 17 kg  |
| <input type="checkbox"/> 17.5 kg | <input type="checkbox"/> 18 kg  | <input type="checkbox"/> 18.5 kg | <input type="checkbox"/> 19 kg   | <input type="checkbox"/> 19.5 kg | <input type="checkbox"/> 20 kg  |                                  |                                 |

**Claimed total water consumption**

Warm wash:\* \_\_\_\_\_ L Cold wash: \_\_\_\_\_ L

**Water connection mode:\* (please tick one)**

- Hot  Cold  Dual (hot and cold)

**Claimed program time**

Warm wash:\* \_\_\_\_\_ mins Cold wash: \_\_\_\_\_ mins

**Does this appliance have an internal heater?\* (please tick one)**

- Yes – on the warm wash program only  Yes – on both the warm and cold wash programs  
 No

**During testing was an internal water heater used in this appliance?\* (please tick one)**

- Yes – on the warm wash program only  Yes – on both the warm and cold wash programs  
 No

**Is the water consumption the same on both cold wash and warm wash programs above?\* (please tick one)**

- Yes  No  N/A

**Does the product have a power (off) switch?\***

- Yes  No

**Does the product have a delay start feature?\***

- Yes  No

## TEST RESULTS

Soiled swatch batch number:\* \_\_\_\_\_

Normalised reference curve number:\* \_\_\_\_\_

|                           |                                    |  |
|---------------------------|------------------------------------|--|
| <b><u>Detergent</u></b>   |                                    |  |
| Type: * (please tick one) | <input type="checkbox"/> Drum type | <input type="checkbox"/> Non-drum type |
| Manufacturer:* _____      |                                    |  |
| Batch number:* _____      |                                    |  |
| Pack date:* _____         |                                    |  |

Was an anti-sudsing agent used?\*  Yes  No

|   |  |   |
|---|--|---|
| <b><i><u>If you ticked yes to the previous question, please answer the following questions:</u></i></b> |  |   |
| <b>Anti-sudsing agent type:</b>   |  |   |
| <input type="checkbox"/> Sebum  | <input type="checkbox"/> Synthetic sebum | <input type="checkbox"/> Silicone based <input type="checkbox"/> Other: _____ |
| Quantity of anti-sudsing agent used:* _____ g   |  |   |

Swatch spectrophotometer category:\* (please tick one)  A  Other: \_\_\_\_\_

Illuminant type\* (please tick one)  D65  Other: \_\_\_\_\_

Standard observer angle:\* (please tick one)  2 degrees  10 degrees

Aperture area:\* \_\_\_\_\_ mm<sup>2</sup>

**Optical geometry:\* (please tick one)**  
 0deg/45deg  45deg/0deg  Diffuse  Other: \_\_\_\_\_

Tristimulus:\* (please tick one)  X  Y  Z

**Swatch spectrophotometer calibration method:\* (please tick one)**  
 Barium sulphate / black  Instrument supplied tiles  Reference tiles (UNSW)

## **POST PROGRAM**

Post-program energy:\* \_\_\_\_\_ kWh

Power consumption in end of cycle mode:\* \_\_\_\_\_ W

Power consumption in off mode:\* \_\_\_\_\_ W

## WASH RESULTS

### Warm wash test results

Tested program time:\* \_\_\_\_\_ min

Average tested cycle duration:\* \_\_\_\_\_ min

Average cold water consumption:\* \_\_\_\_\_ L

Average hot water consumption:\* \_\_\_\_\_ L

Average cold water energy correction/load:\* \_\_\_\_\_ kWh

Average hot water energy per load:\* \_\_\_\_\_ kWh

Average electrical energy per load:\* \_\_\_\_\_ kWh

Average water extraction index:\* \_\_\_\_\_

Severity of wash index:\* \_\_\_\_\_

Average soil removal:\* \_\_\_\_\_ %

SRr - 2 x SDr:\* \_\_\_\_\_ %

### Cold wash test results

Tested program time: \_\_\_\_\_ min

Average tested cycle duration: \_\_\_\_\_ min

Average cold water consumption: \_\_\_\_\_ L

Average hot water consumption: \_\_\_\_\_ L

Average cold water energy correction/load: \_\_\_\_\_ kWh

Average hot water energy per load: \_\_\_\_\_ kWh

Average electrical energy per load: \_\_\_\_\_ kWh

**Please provide details for each test – a minimum of 3:**

|  |
|--|
| <p><b><u>Test #1</u></b><br/>Rinse performance score:* _____</p> <p>Concentration of PBIS in the liquor extracted from the conditioned load:*<br/>_____</p> <p>Warm wash PAEC:* _____</p> <p>Cold wash PAEC: _____</p> |
|--|

|  |
|--|
| <p><b><u>Test #2</u></b><br/>Rinse performance score:* _____</p> <p>Concentration of PBIS in the liquor extracted from the conditioned load:*<br/>_____</p> <p>Warm wash PAEC:* _____</p> <p>Cold wash PAEC: _____</p> |
|--|

|  |
|--|
| <p><b><u>Test #3</u></b><br/>Rinse performance score:* _____</p> <p>Concentration of PBIS in the liquor extracted from the conditioned load:*<br/>_____</p> <p>Warm wash PAEC:* _____</p> <p>Cold wash PAEC: _____</p> |
|--|

|  |
|--|
| <p><b><u>Test #4</u></b><br/>Rinse performance score:* _____</p> <p>Concentration of PBIS in the liquor extracted from the conditioned load:*<br/>_____</p> <p>Warm wash PAEC:* _____</p> <p>Cold wash PAEC: _____</p> |
|--|

**Test #5**

Rinse performance score:\* \_\_\_\_\_

Concentration of PBIS in the liquor extracted from the conditioned load:\*

\_\_\_\_\_

Warm wash PAEC:\* \_\_\_\_\_

Cold wash PAEC: \_\_\_\_\_

**CEC**

Warm wash:\* \_\_\_\_\_ kWh/y Cold wash: \_\_\_\_\_ kWh/y

Em\*: \_\_\_\_\_ kWh/y

## **DRUM 2 APPLIANCE DETAILS**

**You only need to complete the following pages if your clothes washer is a dual-drum washer.**

**Appliance Dimensions:** Width: \_\_\_\_\_ mm Height: \_\_\_\_\_ mm Depth: \_\_\_\_\_ mm

**Clothes washing machine type:\*** (please tick one)  Drum  Non drum

**If you ticked 'Non drum' in the previous question, please answer the following question:**

**Clothes washing machine action: (please tick one)**

Agitator  Impeller  Jet  Bubble  Nutator  Other: \_\_\_\_\_

**Clothes washing machine loading:\*** (please tick one)

Front  Top  Twin tub  Other:: \_\_\_\_\_

**Is this model a combination washer-dryer?\***  Yes  No

**Name of program used in cold wash tests:** \_\_\_\_\_

**Cold wash program description to be noted on the energy efficiency label:**

\_\_\_\_\_

**Name of program for energy efficiency labelling used in warm wash tests:\***

\_\_\_\_\_

**Confirm that the program nominated above is the one recommended for a normally soiled load equal to the rated load capacity in the product literature\***

Yes  No

**Is the program specified above named 'normal' or one that implies normal?\***

Yes  No

**Confirm that the appliance has no other program available that is named 'normal' or one that implies normal\*** (only required if you answered No to 'Is the program specified above named normal or one that implies normal?')

Yes  No

**Rated load capacity:\*** (please tick one)

- 1kg     1.5 kg     2 kg     2.5 kg     3 kg     3.5 kg     4.kg     4.5 kg  
 5 kg     5.5 kg     6 kg     6.5 kg     7 kg     7.5 kg     8 kg     8.5 kg  
 9 kg     9.5 kg     10 kg     10.5 kg     11 kg     12 kg     12.5 kg     13 kg  
 13.5 kg     14 kg     14.5 kg     15 kg     15.5 kg     16 kg     16.5 kg     17 kg  
 17.5 kg     18 kg     18.5 kg     19 kg     19.5 kg     20 kg

**Claimed total water consumption**

Warm wash:\* \_\_\_\_\_ L Cold wash: \_\_\_\_\_ L

Water connection mode:\* (please tick one)     Hot     Cold     Dual (hot and cold)

**Claimed program time**

Warm wash:\* \_\_\_\_\_ mins Cold wash: \_\_\_\_\_ mins

**Does this appliance have an internal heater?\*** (please tick one)

- Yes – on the warm wash program only     Yes – on both the warm and cold wash programs  
 No

**During testing was an internal water heater used in this appliance?\*** (please tick one)

- Yes – on the warm wash program only     Yes – on both the warm and cold wash programs  
 No

**Is the water consumption the same on both cold wash and warm wash programs above?\***  
(please tick one)

- Yes     No     N/A

**Does the product have a power (off) switch?\***

- Yes     No

**Does the product have a delay start feature?\***

- Yes     No



## **DRUM 2 TEST RESULTS**

Soiled swatch batch number:\* \_\_\_\_\_

Normalised reference curve number:\* \_\_\_\_\_

|                           |                                    |  |
|---------------------------|------------------------------------|--|
| <b><u>Detergent</u></b>   |                                    |  |
| Type: * (please tick one) | <input type="checkbox"/> Drum type | <input type="checkbox"/> Non-drum type |
| Manufacturer:* _____      |                                    |  |
| Batch number:* _____      |                                    |  |
| Pack date:* _____         |                                    |  |

Was an anti-sudsing agent used?\*  Yes  No

***If you ticked yes to the previous question, please answer the following questions:***

**Anti-sudsing agent type:**

Sebum  Synthetic sebum  Silicone based  Other: \_\_\_\_\_

Quantity of anti-sudsing agent used:\* \_\_\_\_\_ g

Swatch spectrophotometer category:\* (please tick one)  A  Other: \_\_\_\_\_

Illuminant type\* (please tick one)  D65  Other: \_\_\_\_\_

Standard observer angle:\* (please tick one)  2 degrees  10 degrees

Aperture area:\* \_\_\_\_\_ mm<sup>2</sup>

**Optical geometry:\* (please tick one)**

0deg/45deg  45deg/0deg  Diffuse  Other: \_\_\_\_\_

Tristimulus:\* (please tick one)  X  Y  Z

**Swatch spectrophotometer calibration method:\* (please tick one)**

Barium sulphate / black  Instrument supplied tiles  Reference tiles (UNSW)

## **DRUM 2 POST PROGRAM**

Post-program energy:\* \_\_\_\_\_ kWh

Power consumption in end of cycle mode:\* \_\_\_\_\_ W

Power consumption in off mode:\* \_\_\_\_\_ W

## **DRUM 2 WASH RESULTS**

### **Warm wash test results**

Tested program time:\* \_\_\_\_\_ min

Average tested cycle duration:\* \_\_\_\_\_ min

Average cold water consumption:\* \_\_\_\_\_ L

Average hot water consumption:\* \_\_\_\_\_ L

Average cold water energy correction/load:\* \_\_\_\_\_ kWh

Average hot water energy per load:\* \_\_\_\_\_ kWh

Average electrical energy per load:\* \_\_\_\_\_ kWh

Average water extraction index:\* \_\_\_\_\_

Severity of wash index:\* \_\_\_\_\_

Average soil removal:\* \_\_\_\_\_ %

SRr - 2 x SDr:\* \_\_\_\_\_ %

### **Cold wash test results**

Tested program time: \_\_\_\_\_ min

Average tested cycle duration: \_\_\_\_\_ min

Average cold water consumption: \_\_\_\_\_ L

Average hot water consumption: \_\_\_\_\_ L

Average cold water energy correction/load: \_\_\_\_\_ kWh

Average hot water energy per load: \_\_\_\_\_ kWh

Average electrical energy per load: \_\_\_\_\_ kWh

**Please provide details for each test – a minimum of 3:**

|  |
|--|
| <p><b><u>Test #1</u></b><br/>Rinse performance score:* _____</p> <p>Concentration of PBIS in the liquor extracted from the conditioned load:*<br/>_____</p> <p>Warm wash PAEC:* _____</p> <p>Cold wash PAEC: _____</p> |
|--|

|  |
|--|
| <p><b><u>Test #2</u></b><br/>Rinse performance score:* _____</p> <p>Concentration of PBIS in the liquor extracted from the conditioned load:*<br/>_____</p> <p>Warm wash PAEC:* _____</p> <p>Cold wash PAEC: _____</p> |
|--|

|  |
|--|
| <p><b><u>Test #3</u></b><br/>Rinse performance score:* _____</p> <p>Concentration of PBIS in the liquor extracted from the conditioned load:*<br/>_____</p> <p>Warm wash PAEC:* _____</p> <p>Cold wash PAEC: _____</p> |
|--|

|  |
|--|
| <p><b><u>Test #4</u></b><br/>Rinse performance score:* _____</p> <p>Concentration of PBIS in the liquor extracted from the conditioned load:*<br/>_____</p> <p>Warm wash PAEC:* _____</p> <p>Cold wash PAEC: _____</p> |
|--|

**Test #5**

Rinse performance score:\* \_\_\_\_\_

Concentration of PBIS in the liquor extracted from the conditioned load:\*

\_\_\_\_\_

Warm wash PAEC:\* \_\_\_\_\_

Cold wash PAEC: \_\_\_\_\_

**CEC**

Warm wash:\* \_\_\_\_\_ kWh/y Cold wash: \_\_\_\_\_ kWh/y

Em\*: \_\_\_\_\_ kWh/y