## Nationwide House Energy Rating Scheme\* Certificate

### Certificate number: 0004237103

Certificate Date: 27 Sep 2019

\*Star rating: 5.1



BERS Pro v4.3.0.0 (3.13) cannot be used to model 'roof windows'. Roof windows are 'openable or fixed windows in a roof' and do not have a shaft, as distinct from skylights which incorporate a built-in shaft and are not ventilated. BERS Pro v4.3 can only model skylights. If a roof window is present on the floor plan then this certificate is not valid.

### Assessor details

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Accreditation number:	101182
Name:	Daniel.Warda
Organisation:	Energi Thermal Assessors Pty Ltd
Email:	daniel.warda@hotmail.com
Phone:	0452504125
Declaration of interest:	None
Software:	BERS Pro v4.3.0.2d (3.13)
AAO:	ABSA

## **Overview**

### **Dwelling details**

Street:	Warriewood Road		
Suburb:	Warriewood		
State:	NSW	Postcode:	2102
Type:	New Dwelling	NCC Class: NatHERS	1A
Lot/DP		climate zone:	56
number:	9/1206507	Exposure:	Suburban

### Key construction and insulation materials

(see following pages for details)

Construction:	Fibro Cavity Panel Direct Fix
	Roof Tiles
	Waffle pod slab 300 mm
Insulation:	R2.0 wall insulation
	R4.0 ceiling insulation
	No floor insulation
Glazing:	ALM-002-04 A Aluminium B SG Low
	Solar Gain Low-E

Net floor area (m <sup>2</sup> )		Annual ther	
Conditioned: Unconditioned:	202.0 46.0	performanc (MJ/m <sup>2</sup> )	e loads
Garage:	35.0	Heating:	39.
TOTAL:	248.0	Cooling:	25.
		TOTAL:	64.

#### **Plan documents**

Plan ref/date: 17398 Prepared by: Wincrest - EB



Ceiling penet		**NOTE: This total is the maximum number of ceiling penetrations allowed to a
Sealed:	0	ceiling (under a roof) for this certificate. If this number is
Unsealed:	0	exceded in construction then this certificate IS NOT VALID
TOTAL:**	0	and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been taken into account with the rating.
Principle downlig	ht type: Uni	known

### Window selection default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Scan to access this certificate online and confirm this is valid.



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39.4 25.4

64.8

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## **Building features**

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## Window type and performance value

Window ID	Window type	U-value	SHGC
ALM-002-04 A	ALM-002-04 A Aluminium B SG Low Solar Gain Low-E	5.6	0.41
ALM-002-01 A	ALM-002-01 A Aluminium B SG Clear	6.7	0.70

### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-002-04 A	n/a	2050	2650	N	No Shading
Kitchen/Living	ALM-002-04 A	n/a	2050	1810	W	No Shading
Kitchen/Living	ALM-002-04 A	n/a	2050	1810	N	No Shading
Kitchen/Living	ALM-002-04 A	n/a	2100	5302	W	No Shading
Laundry	ALM-002-01 A	n/a	600	1810	S	No Shading
Powder Room	ALM-002-01 A	n/a	429	1210	N	No Shading
Bedroom 4	ALM-002-01 A	n/a	600	2650	N	No Shading
Bedroom 4	ALM-002-01 A	n/a	1800	1450	E	No Shading
Living	ALM-002-01 A	n/a	600	2650	N	No Shading
Living	ALM-002-01 A	n/a	1200	2650	W	No Shading
Bathroom	ALM-002-01 A	n/a	600	1210	N	No Shading
Bedroom 3	ALM-002-04 A	n/a	600	2650	N	No Shading
Bedroom 3	ALM-002-04 A	n/a	1457	2170	E	No Shading
Hall/Stairs	ALM-002-01 A	n/a	1029	1450	E	No Shading
Bedroom 2	ALM-002-04 A	n/a	1457	2650	E	No Shading
E.S	ALM-002-01 A	n/a	600	1570	S	No Shading
Bedroom 1	ALM-002-04 A	n/a	600	2650	S	No Shading
Bedroom 1	ALM-002-04 A	n/a	1200	2650	W	No Shading

ID	Window	type			U-value	SHGC
None Presen	t					
Roof windo	w and skylig	nt schedule				
Location	ID	Roof window/skylight no.	Area (m <sup>2</sup> )	Orientation	Outdoor shade	Indoor shade/diffuser

External wall t	уре					
ID	Wall type		Insulation		Wa	all wrap or foi
EW-1	Fibro Cavity P	anel Direct Fix	Anti-glare foil	with bulk no gap		
External wall s	chedule					
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	4800	2700	N	No	100
Kitchen/Living	<b>EW-1</b>	2500	2700	W	No	600
Kitchen/Living	EW-1	3495	2700	N	No	600
Kitchen/Living	EW-1	4995	2700	S	No	600

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Building featur	es continued					
Kitchen/Living	EW-1	10600	2700	W	No	600
Laundry	EW-1	700	2700	E	No	6700
Laundry	EW-1	2495	2700	S	No	600
Entry/Stairs	EW-1	2395	2700	E	No	2500
Garage	EW-1	900	2700	N	No	7200
Garage	EW-1	5800	2700	E	No	600
Garage	EW-1	6095	2700	S	No	600
Powder Room	EW-1	1690	2700	N	No	600
Bedroom 4	EW-1	3595	2700	N	No	600
Bedroom 4	EW-1	4200	2700	E	No	1600
Bedroom 4	EW-1	895	2700	S	No	8800
Living	EW-1	4995	2450	N	No	600
Living	EW-1	4095	2450	W	No	600
Bathroom	EW-1	1600	2450	W	No	600
Bathroom	EW-1	2395	2450	N	No	600
Bedroom 3	EW-1	4095	2450	N	No	600
Bedroom 3	EW-1	3300	2450	E	No	400
Bedroom 3	EW-1	900	2450	S	No	7000
Hall/Stairs	EW-1	2390	2450	E	No	600
Bedroom 2	EW-1	3995	2450	E	No	600
Bedroom 2	EW-1	3395	2450	S	No	600
E.S	EW-1	400	2450	E	No	4000
E.S	EW-1	3200	2450	S	No	600
E.S	EW-1	400	2450	W	No	4600
Bedroom 1	EW-1	3995	2450	S	No	600
Bedroom 1	EW-1	3995	2450	W	No	600

## Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	141.0	No insulation	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	30.0	Bulk Insulation, No Air Gap R2	No

Floors					
Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Waffle pod slab 300 mm 100mm	85.4	None	Waffle Pod 300mm	Cork Tiles or Parquetry 8mm
Laundry	Waffle pod slab 300 mm 100mm	4.3	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Entry/Stairs	Waffle pod slab 300 mm 100mm	13.9	None	Waffle Pod 300mm	Cork Tiles or Parquetry 8mm
Garage	Waffle pod slab 300 mm 100mm	34.9	None	Waffle Pod 300mm	Bare
Powder Room	Waffle pod slab 300 mm 100mm	4.4	None	Waffle Pod 300mm	Ceramic Tiles 8mm

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s continued			
Waffle pod slab 300 mm 100mm	14.0 None	Waffle Pod 300mm	Carpet 10mm
Timber Above Plasterboard 19mm	20.1	No Insulation	Carpet 10mm
Timber Above Plasterboard 19mm	3.8	No Insulation	Ceramic Tiles 8mm
Timber Above Plasterboard 19mm	1.2	No Insulation	Ceramic Tiles 8mm
Timber Above Plasterboard 19mm	2.2	No Insulation	Ceramic Tiles 8mm
Timber Above Plasterboard 19mm	1.1	No Insulation	Carpet 10mm
Timber Above Plasterboard 19mm	0.9	No Insulation	Carpet 10mm
Timber Above Plasterboard 19mm	10.8	No Insulation	Carpet 10mm
Timber Above Plasterboard 19mm	1.9	No Insulation	Carpet 10mm
Timber Above Plasterboard 19mm	11.6	No Insulation	Carpet 10mm
Timber Above Plasterboard 19mm	13.3	No Insulation	Carpet 10mm
Timber Above Plasterboard 19mm	3.3	No Insulation	Ceramic Tiles 8mm
Timber Above Plasterboard 19mm	4.3	No Insulation	Ceramic Tiles 8mm
Timber Above Plasterboard 19mm	2.5	No Insulation	Carpet 10mm
Timber Above Plasterboard 19mm	3.2	No Insulation	Carpet 10mm
Timber Above Plasterboard	15.6	No Insulation	Carpet 10mm
	Timber Above Plasterboard 19mmTimber Above Plasterboard 19mm	Waffle pod slab 300 mm 100mm14.0NoneTimber Above Plasterboard 19mm20.120.1Timber Above Plasterboard 19mm3.83.8Timber Above Plasterboard 19mm1.23.8Timber Above Plasterboard 19mm1.23.8Timber Above Plasterboard 19mm1.23.8Timber Above Plasterboard 19mm0.93.8Timber Above Plasterboard 19mm0.93.8Timber Above Plasterboard 19mm10.83.3Timber Above Plasterboard 19mm1.13.3Timber Above Plasterboard 19mm1.63.3Timber Above Plasterboard 19mm3.33.3Timber Above Plasterboard 19mm3.33.3Timber Above Plasterboard 19mm3.33.3Timber Above Plasterboard 19mm3.33.3Timber Above Plasterboard 19mm3.33.3Timber Above Plasterboard 19mm3.23.2Timber Above Plasterboard 19mm3.23.2Timber Above Plasterboard 19mm3.23.2Timber Above Plasterboard 19mm3.23.2Timber Above Plasterboard 19mm3.23.2Timber Above Plasterboard 19mm3.2Timber Above Plasterboard 19mm3.2	Waffle pod slab 300 mm 100mm14.0NoneWaffle Pod 300mmTimber Above Plasterboard20.1No Insulation19mm3.8No InsulationTimber Above Plasterboard3.8No Insulation19mm1.2No Insulation19mm2.2No Insulation19mm2.2No Insulation19mm1.1No Insulation19mm0.9No Insulation19mm10.8No Insulation19mm10.8No Insulation19mm10.8No Insulation19mm11.6No Insulation19mm3.3No Insulation19mm3.3No Insulation19mm12.5No Insulation19mm3.3No Insulation19mm3.2No Insulation19mm3.2No Insulation

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Location	Construction	Added insulation	Roof space above
Kitchen/Living	Plasterboard	Bulk Insulation R4	Yes
Kitchen/Living	Timber Above Plasterboard	No Insulation	No
Laundry	Plasterboard	Bulk Insulation R4	Yes
Entry/Stairs	Timber Above Plasterboard	No Insulation	No
Garage	Plasterboard	No insulation	Yes
Garage	Timber Above Plasterboard	No Insulation	No
Powder Room	Plasterboard	Bulk Insulation R4	Yes
Powder Room	Timber Above Plasterboard	No Insulation	No
Bedroom 4	Plasterboard	Bulk Insulation R4	Yes
Bedroom 4	Timber Above Plasterboard	No Insulation	No
Living	Plasterboard	Bulk Insulation R4	Yes

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uilding feature	es continued					
Bathroom	Plasterboard			Bulk Insulation R4	Yes	
Bedroom 3	Plasterboard			Bulk Insulation R4	Yes	
Hall/Stairs	Plasterboard			Bulk Insulation R4	Yes	
Bedroom 2	Plasterboard			Bulk Insulation R4	Yes	
E.S	Plasterboard			Bulk Insulation R4	Yes	
W.I.R	Plasterboard			Bulk Insulation R4	Yes	
Bedroom 1	Plasterboard			Bulk Insulation R4	Yes	

Ceiling penetrations				
Location	Number	Туре	Diameter (mm) Sealed/unseale	
None Presen	it			

<b>Ceiling fans</b>			
Location	Number	Diameter (mm)	
None Present	t		

Construction	Added Roof colou insulation	
Roof Tiles	Foil, Gap Above, Dark Reflective Side Down, Anti-glare Up	
Roof Tiles	Foil, Gap Above, Dark Reflective Side Down, Anti-glare Up	

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### **Additional information**

# Explanatory notes

### About this report

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

### **General Information**

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in the report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using the underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance.

The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

#### **Accredited Assessors**

To ensure you get a high-quality, professional NatHERS House Energy Rating report, you should always use an accredited assessor, accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

AAOs have specific quality assurance processes in place and continuing professional development requirements to maintain a high and consistent standard of assessments across the country. Non-accredited assessors do not have this level of quality assurance or any on-going training requirements.

If you have any questions or concerns about this report, please direct them to your assessor in the first instance.

If your assessor is unable to address your questions or concerns, please contact their AAO listed under 'assessor details'. You can also find a range of information about accredited assessors on the AAO websites.

### Disclaimer

The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate. Changes to any of these details could affect the rating.

### Contact

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au

For more information on energy efficient design and insulation visit www.yourhome.gov.au

Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au