Nationwide House Energy Rating Scheme
NatHERS Certificate No. 0005762463-02

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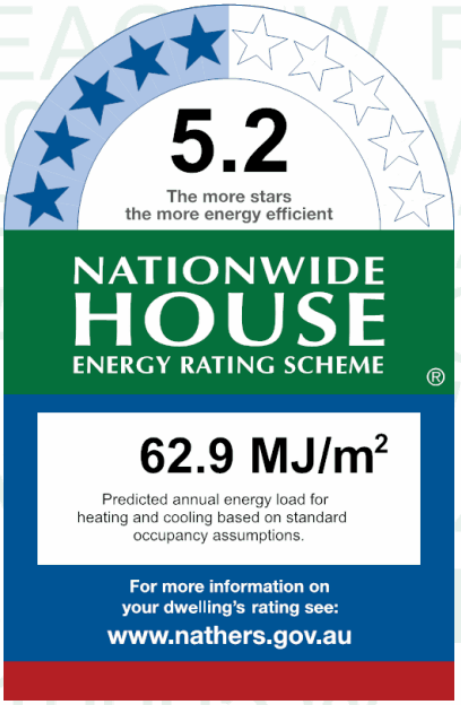

Property

Address	141 Riverview Road , Avalon Beach , NSW , 2107
Lot/DP	2/833902
NCC Class*	1A
Type	New Dwelling

Plans

Main Plan	Bonu 20127
Prepared by	AW

Construction and environment

Assessed floor area (m^2)*		**Exposure Type**
Conditioned*	301.0	Exposed
Unconditioned*	65.0	**NatHERS climate zone**
Total	366.0	56
Garage	35.0	

Thermal performance

Heating	Cooling
39.3	**23.6**
MJ/m^2	MJ/m^2

About the rating

NatHERS software models the expected thermal energy loads using information about the design and construction, climate and common patterns of household use. The software does not take into account appliances, apart from the airflow impacts from ceiling fans.

Accredited assessor

Name	Ian Fry
Business name	Frys Energywise
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Phone	02 9899 2825
Accreditation No.	DMN/12/1441

Assessor Accrediting Organisation

Design Matters National

Declaration of interest Declaration completed: no conflicts

Verification

To verify this certificate, scan the QR code or visit hstar.com.au/QR/Generate?p=aBCMXEoSq.
When using either link, ensure you are visiting hstar.com.au

National Construction Code (NCC) requirements

The NCC's requirements for NatHERS-rated houses are detailed in 3.12.0(a)(i) and 3.12.5 of the NCC Volume Two. For apartments the requirements are detailed in J0.2 and J5 to J8 of the NCC Volume One.

In NCC 2019, these requirements include minimum star ratings and separate heating and cooling load limits that need to be met by buildings and apartments through the NatHERS assessment. Requirements additional to the NatHERS assessment that must also be satisfied include, but are not limited to: insulation installation methods, thermal breaks, building sealing, water heating and pumping, and artificial lighting requirements. The NCC and NatHERS Heating and Cooling Load Limits (Australian Building Codes Board Standard) are available at www.abcb.gov.au.

State and territory variations and additions to the NCC may also apply.

Certificate check

Ensure the dwelling is designed and then built as per the NatHERS Certificate. While you need to check the accuracy of the whole Certificate, the following spot check covers some important items impacting the dwelling's rating.

Genuine certificate

Does this Certificate match the one available at the web address or QR code in the verification box on the front page? Does the set of NatHERS-stamped plans for the dwelling have a Certificate number on the stamp that matches this Certificate?

Ceiling penetrations*

Does the 'number' and 'type' of ceiling penetrations (e.g. downlights, exhaust fans, etc) shown on the stamped plans or installed, match what is shown in this Certificate?

Windows

Does the installed window meet the substitution tolerances (SHGC and U-value) and window type, of the window shown on this Certificate?

Apartment entrance doors

Does the 'External Door Schedule' show apartment entrance doors? Please note that an "external door" between the modelled dwelling and a shared space, such as an enclosed corridor or foyer, should not be included in the assessment (because it overstates the possible ventilation) and would invalidate the Certificate.

Exposure*

Has the appropriate exposure level (terrain) been applied? For example, it is unlikely that a ground-floor apartment is "exposed" or a top floor high-rise apartment is "protected".

Provisional* values

Have provisional values been used in the assessment and, if so, noted in "additional notes" below?

Additional notes

Window and glazed door *type and performance*

Default* windows

Window ID	Window Description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
No Data Available					

Custom* windows

Window ID	Window Description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
BRD-033-10 A	BRD-033-10 A ESS Sliding Door (80mm) SG 6.38CPClr	4.3	0.60	0.57	0.63
BRD-063-12 A	BRD-063-12 A SIG Fixed Lite (67mm) SG 638CP	4.1	0.47	0.45	0.49
BRD-050-02 A	BRD-050-02 A ESS Awning Window (100mm) (25mm Packet)DG 6Sn-12-6	4.3	0.36	0.34	0.38
BRD-102-09 A	BRD-102-09 A Signature Sliding Window 100TB DG 4mmET/12Ar/4mmET	2.5	0.42	0.40	0.44
BRD-104-08 A	BRD-104-08 A Signature Fixed Lite EXT 100TB DG 4mmET/12Ar/4mmClr	2.2	0.56	0.53	0.59
BRD-112-01 A	BRD-112-01 A ESS Awning 52 SG 4mmClr	6.5	0.67	0.64	0.70

Custom* windows

Window ID	Window Description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
BRD-026-18 A	BRD-026-18 A ESS Awning Window (52mm) SG 638CP	5.0	0.40	0.38	0.42
BRD-001-15 A	BRD-001-15 A ESS Sliding Window (52mm) SG 638CP	4.6	0.46	0.44	0.48
BRD-006-01 A	BRD-006-01 A SIG Bi Fold Door (100mm) SG 4Clr	6.1	0.61	0.58	0.64
BRD-001-01 A	BRD-001-01 A ESS Sliding Window (52mm) SG 3Clr	6.4	0.76	0.72	0.80

Window and glazed door *schedule*

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orientation	Window shading device*
Guest Bedroom	BRD-033-10 A	n/a	2400	4900	n/a	65	W	No
Guest Bedroom	BRD-063-12 A	n/a	2400	1800	n/a	00	N	No
Stairwell	BRD-033-10 A	n/a	2400	1800	n/a	45	N	No
WIR	BRD-050-02 A	n/a	600	800	n/a	90	S	No
Kitchen/Lounge	BRD-102-09 A	n/a	2400	5100	n/a	72	W	No
Kitchen/Lounge	BRD-102-09 A	n/a	2400	4200	n/a	68	W	No
Kitchen/Lounge	BRD-050-02 A	n/a	2400	3600	n/a	45	W	No
Kitchen/Lounge	BRD-104-08 A	n/a	2400	900	n/a	00	S	No
Ensuite Bed 3	BRD-112-01 A	n/a	600	1200	n/a	90	W	No
Bedroom 3	BRD-026-18 A	n/a	1800	2400	n/a	60	W	No
Cinema	BRD-001-15 A	n/a	600	1800	n/a	45	E	No
Cinema	BRD-001-15 A	n/a	600	1800	n/a	45	E	No
WC	BRD-112-01 A	n/a	600	1200	n/a	90	E	No
Laundry	BRD-006-01 A	n/a	2100	820	n/a	90	S	No
Laundry	BRD-112-01 A	n/a	1100	580	n/a	90	S	No
Scullery	BRD-001-01 A	n/a	1200	1500	n/a	45	S	No
Master Bedroom	BRD-026-18 A	n/a	1800	1500	n/a	45	S	No
Master Bedroom	BRD-063-12 A	n/a	1800	5200	n/a	00	W	No
Void Dining	BRD-104-08 A	n/a	1800	4700	n/a	00	W	No
Entry	BRD-102-09 A	n/a	2400	3300	n/a	45	W	No
Entry	BRD-050-02 A	n/a	2400	800	n/a	90	E	No
Entry	BRD-050-02 A	n/a	2400	600	n/a	90	E	No
Entry	BRD-050-02 A	n/a	2400	600	n/a	90	E	No
Entry	BRD-050-02 A	n/a	2400	600	n/a	90	E	No
Entry	BRD-050-02 A	n/a	2400	600	n/a	90	E	No
Powder	BRD-112-01 A	n/a	600	1200	n/a	90	W	No
Bedroom 2	BRD-026-18 A	n/a	1800	2400	n/a	60	W	No
Study	BRD-026-18 A	n/a	2200	3200	n/a	45	E	No
Ensuite Master	BRD-006-01 A	n/a	1200	1300	n/a	90	E	No

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orientation	Window shading device*
Walk In Robe Ma	BRD-050-02 A	n/a	700	700	n/a	90	E	No
Walk In Robe Ma	BRD-050-02 A	n/a	700	700	n/a	90	E	No

Roof window *type and performance*

Default* roof windows

Window ID	Window Description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
No Data Available					

Custom* roof windows

Window ID	Window Description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
No Data Available					

Roof window *schedule*

Location	Window ID	Window no.	Opening %	Height (mm)	Width (mm)	Orientation	Outdoor shade	Indoor shade
No Data Available								

Skylight *type and performance*

Skylight ID	Skylight description
No Data Available	

Skylight *schedule*

Location	Skylight ID	Skylight No.	Skylight shaft length (mm)	Area (m^2)	Orientation	Outdoor shade	Diffuser	Skylight shaft reflectance
No Data Available								

External door *schedule*

Location	Height (mm)	Width (mm)	Opening %	Orientation
Entry	2400	1020	90	E
Store	2040	820	90	S

External wall *type*

Wall ID	Wall type	Solar absorptance	Wall shade (colour)	Bulk insulation (R-value)	Reflective wall wrap*
EW-1	Cavity Brick	0.50	Medium	Foil Anti-glare one side and Reflective other of the Bulk Insulation R0.9	Yes

* Refer to glossary.

Wall ID	Wall type	Solar absorptance	Wall shade (colour)	Bulk insulation (R-value)	Reflective wall wrap*
EW-2	Cavity Brick	0.50	Medium	Foil Anti-glare one side and Reflective other of the Bulk Insulation R0.9	Yes
EW-3	Metal Clad Cavity Panel Direct Fix	0.50	Medium	Bulk Insulation R2.5	No
EW-4	Metal Clad Cavity Panel Direct Fix	0.50	Medium	Bulk Insulation R2.5	No
EW-5	Cavity Brick	0.50	Medium	No insulation	No

External wall *schedule*

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
Guest Bedroom	EW-1	2860	5800	W	2300	NO
Guest Bedroom	EW-1	2860	4095	N	8500	NO
Guest Bedroom	EW-1	2860	4095	S	1200	NO
Stairwell	EW-1	2860	2695	N	14100	YES
Stairwell	EW-1	2860	4300	W	8950	YES
Stairwell	EW-1	2860	1300	N	9800	NO
Stairwell	EW-1	2860	5795	E	4100	NO
Ensuite	EW-1	2860	1795	E	2300	NO
Ensuite	EW-1	2860	2400	S	3700	YES
WIR	EW-1	2860	2495	E	4700	YES
WIR	EW-1	2860	1595	S	1200	NO
Kitchen/Lounge	EW-1	2550	14200	W	600	NO
Kitchen/Lounge	EW-1	2550	3800	N	100	YES
Kitchen/Lounge	EW-1	2550	4095	S	400	NO
Ensuite Bed 3	EW-1	2550	1790	W	100	YES
Bedroom 3	EW-1	2550	1295	W	100	YES
Bedroom 3	EW-1	2550	400	S	100	YES
Bedroom 3	EW-1	2550	2500	W	100	NO
Bedroom 3	EW-1	2550	4295	N	100	NO
Walk In Robe 3	EW-1	2550	1895	N	100	NO
Walk In Robe 3	EW-1	2550	2495	E	6100	NO
Lift	EW-1	2550	1290	E	6100	NO
Hallway	EW-1	2550	3090	E	100	YES
Cinema	EW-1	2550	900	N	100	YES
Cinema	EW-1	2550	5595	E	100	NO
WC	EW-1	2550	1795	E	100	NO
WC	EW-1	2550	1795	S	5600	YES
Passage	EW-1	2550	695	E	1900	YES
Laundry	EW-1	2550	4795	E	1900	NO
Laundry	EW-1	2550	1895	S	100	NO

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
Scullery	EW-1	2550	495	S	100	NO
Scullery	EW-1	2550	2195	S	400	NO
Master Bedroom	EW-1	730	195	S	0	NO
Master Bedroom	EW-1	1820	195	S	600	NO
Master Bedroom	EW-1	2550	3200	S	600	NO
Master Bedroom	EW-1	2550	5195	W	600	NO
Void Dining	EW-1	2550	5090	W	600	NO
Entry	EW-1	2550	3895	W	600	NO
Entry	EW-1	2550	700	N	6200	YES
Entry	EW-1	2550	1495	E	1500	YES
Entry	EW-1	2550	600	S	15100	YES
Entry	EW-1	730	4295	E	0	YES
Entry	EW-1	1820	4295	E	2100	YES
Powder	EW-1	2550	1790	W	1000	YES
Bedroom 2	EW-1	2550	1295	W	1000	YES
Bedroom 2	EW-1	2550	400	S	17900	YES
Bedroom 2	EW-1	2550	2500	W	600	NO
Bedroom 2	EW-1	2550	4295	N	600	NO
Bedroom 2	EW-4	470	2105	E	8000	NO
Walk In Robe 2	EW-1	2080	1890	N	0	NO
Walk In Robe 2	EW-1	470	1890	N	600	NO
Study	EW-1	730	1500	N	0	YES
Study	EW-1	1820	1500	N	11800	YES
Study	EW-1	730	3795	E	0	NO
Study	EW-1	1820	3795	E	600	NO
Ensuite Master	EW-1	730	2990	E	0	NO
Ensuite Master	EW-1	1820	2990	E	600	NO
Walk In Robe Ma	EW-1	730	3395	E	0	NO
Walk In Robe Ma	EW-1	1820	3395	E	600	NO
Walk In Robe Ma	EW-2	730	3995	S	0	NO
Walk In Robe Ma	EW-2	1820	3995	S	600	NO
Store	EW-5	2550	195	N	600	YES
Store	EW-5	2550	2100	W	100	YES
Store	EW-5	2550	5800	N	100	NO
Store	EW-5	2550	5900	E	100	NO
Store	EW-5	2550	5995	S	100	YES

* Refer to glossary.

Internal wall *type*

Wall ID	Wall type	Area (m^2)	Bulk insulation
IW-1 - Cavity wall, direct fix plasterboard, single gap		235.00	No insulation
IW-2 - Cavity wall, direct fix plasterboard, single gap		54.00	Bulk Insulation, No Air Gap R2

Floor *type*

Location	Construction	Area (m^2)	Sub-floor ventilation	Added insulation (R-value)	Covering
Guest Bedroom	Concrete Slab on Ground 100mm	23.50	None	No Insulation	Carpet+Rubber Underlay 18mm
Stairwell	Concrete Slab on Ground 100mm	11.30	None	No Insulation	Carpet+Rubber Underlay 18mm
Ensuite	Concrete Slab on Ground 100mm	6.90	None	No Insulation	Ceramic Tiles 8mm
WIR	Concrete Slab on Ground 100mm	3.80	None	No Insulation	Carpet+Rubber Underlay 18mm
Kitchen/Lounge/Guest Bedroom	Concrete Above Plasterboard 150mm	14.30		No Insulation	80/20 Carpet 10mm/Ceramic
Kitchen/Lounge/Stairwell	Concrete Above Plasterboard 150mm	10.30		No Insulation	80/20 Carpet 10mm/Ceramic
Kitchen/Lounge/Ensuite	Concrete Above Plasterboard 150mm	2.80		No Insulation	80/20 Carpet 10mm/Ceramic
Kitchen/Lounge/WIR	Concrete Above Plasterboard 150mm	4.00		No Insulation	80/20 Carpet 10mm/Ceramic
Kitchen/Lounge	Suspended Concrete Slab 150mm	48.50	Totally Open	Bulk Insulation in Contact with Floor R2	Ceramic Tiles 8mm
Ensuite Bed 3	Concrete Slab on Ground 100mm	4.50	None	No Insulation	Ceramic Tiles 8mm
Bedroom 3	Concrete Slab on Ground 100mm	16.40	None	No Insulation	Carpet+Rubber Underlay 18mm
Walk In Robe 3	Concrete Slab on Ground 100mm	4.30	None	No Insulation	Carpet+Rubber Underlay 18mm
Lift	Concrete Slab on Ground 100mm	1.50	None	No Insulation	Bare
Hallway	Concrete Slab on Ground 100mm	9.20	None	No Insulation	Ceramic Tiles 8mm
Cinema	Concrete Slab on Ground 100mm	21.80	None	No Insulation	Carpet+Rubber Underlay 18mm
WC	Concrete Slab on Ground 100mm	3.10	None	No Insulation	Ceramic Tiles 8mm
Passage	Concrete Slab on Ground 100mm	5.10	None	No Insulation	Ceramic Tiles 8mm
Laundry	Concrete Slab on Ground 100mm	8.80	None	No Insulation	Ceramic Tiles 8mm
Scullery/Stairwell	Concrete Above Plasterboard 100mm	1.10		No Insulation	Ceramic Tiles 8mm
Scullery/Ensuite	Concrete Above Plasterboard 100mm	4.10		No Insulation	Ceramic Tiles 8mm
Scullery	Concrete Slab on Ground 100mm	7.10	None	No Insulation	Ceramic Tiles 8mm
Master Bedroom/Kitchen/Lounge	Concrete Above Plasterboard 19mm	6.00		No Insulation	Carpet+Rubber Underlay 18mm
Master Bedroom/Passage	Concrete Above Plasterboard 19mm	0.70		No Insulation	Carpet+Rubber Underlay 18mm
Master Bedroom/Laundry	Concrete Above Plasterboard 19mm	2.20		No Insulation	Carpet+Rubber Underlay 18mm
Master Bedroom/Scullery	Concrete Above Plasterboard 19mm	11.60		No Insulation	Carpet+Rubber Underlay 18mm

Location	Construction	Area (m)	Sub-floor ventilation	Added insulation (R-value)	Covering
Void Dining/Kitchen/Lounge	Concrete Above Plasterboard 19mm	16.80		No Insulation	Carpet+Rubber Underlay 18mm
Entry/Kitchen/Lounge	Concrete Above Plasterboard 19mm	12.90		No Insulation	Carpet+Rubber Underlay 18mm
Entry/Hallway	Concrete Above Plasterboard 19mm	8.40		No Insulation	Carpet+Rubber Underlay 18mm
Entry/Cinema	Concrete Above Plasterboard 19mm	9.60		No Insulation	Carpet+Rubber Underlay 18mm
Entry/Passage	Concrete Above Plasterboard 19mm	2.20		No Insulation	Carpet+Rubber Underlay 18mm
Powder/Ensuite Bed 3	Concrete Above Plasterboard 19mm	4.50		No Insulation	Ceramic Tiles 8mm
Bedroom 2/Bedroom 3	Concrete Above Plasterboard 19mm	16.40		No Insulation	Carpet+Rubber Underlay 18mm
Walk In Robe 2/Walk In Robe 3	Concrete Above Plasterboard 19mm	4.20		No Insulation	Carpet+Rubber Underlay 18mm
Lift Upper/Lift	Concrete Above Plasterboard 19mm	1.50		No Insulation	Bare
Study/Cinema	Concrete Above Plasterboard 19mm	8.10		No Insulation	Carpet+Rubber Underlay 18mm
Study/WC	Concrete Above Plasterboard 19mm	1.60		No Insulation	Carpet+Rubber Underlay 18mm
Study/Passage	Concrete Above Plasterboard 19mm	1.00		No Insulation	Carpet+Rubber Underlay 18mm
Ensuite Master/WC	Concrete Above Plasterboard 150mm	1.50		No Insulation	Ceramic Tiles 8mm
Ensuite Master/Passage	Concrete Above Plasterboard 150mm	1.40		No Insulation	Ceramic Tiles 8mm
Ensuite Master	Suspended Concrete Slab 150mm	3.60	Totally Open	Bulk Insulation in Contact with Floor R2	Ceramic Tiles 8mm
Walk In Robe Ma/Laundry	Concrete Above Plasterboard 150mm	6.30		No Insulation	Carpet+Rubber Underlay 18mm
Walk In Robe Ma/Scullery	Concrete Above Plasterboard 150mm	1.00		No Insulation	Carpet+Rubber Underlay 18mm
Walk In Robe Ma	Suspended Concrete Slab 150mm	6.00	Totally Open	Bulk Insulation in Contact with Floor R2	Carpet+Rubber Underlay 18mm
Store	Suspended Concrete Slab 150mm	34.80	Totally Open	No Insulation	Bare

Ceiling *type*

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
Guest Bedroom	Concrete, Plasterboard	Bulk Insulation R2	No
Guest Bedroom	Concrete Above Plasterboard	No Insulation	No
Stairwell	Concrete Above Plasterboard	No Insulation	No
Ensuite	Concrete Above Plasterboard	No Insulation	No
WIR	Concrete Above Plasterboard	No Insulation	No
Kitchen/Lounge	Plasterboard	Bulk Insulation R5	No
Kitchen/Lounge	Concrete Above Plasterboard	No Insulation	No
Ensuite Bed 3	Concrete Above Plasterboard	No Insulation	No
Bedroom 3	Concrete Above Plasterboard	No Insulation	No
Walk In Robe 3	Concrete Above Plasterboard	No Insulation	No
Lift	Concrete Above Plasterboard	No Insulation	No

* Refer to glossary.

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
Hallway	Plasterboard	Bulk Insulation R5	No
Hallway	Concrete Above Plasterboard	No Insulation	No
Cinema	Plasterboard	Bulk Insulation R5	No
Cinema	Concrete Above Plasterboard	No Insulation	No
WC	Concrete Above Plasterboard	No Insulation	No
Passage	Concrete Above Plasterboard	No Insulation	No
Laundry	Concrete Above Plasterboard	No Insulation	No
Scullery	Concrete Above Plasterboard	No Insulation	No
Master Bedroom	Plasterboard	Bulk Insulation R5	No
Void Dining	Plasterboard	Bulk Insulation R5	No
Entry	Plasterboard	Bulk Insulation R5	No
Powder	Plasterboard	Bulk Insulation R5	No
Bedroom 2	Plasterboard	Bulk Insulation R5	No
Walk In Robe 2	Plasterboard	Bulk Insulation R5	No
Lift Upper	Plasterboard	Bulk Insulation R5	No
Study	Plasterboard	Bulk Insulation R5	No
Ensuite Master	Plasterboard	Bulk Insulation R5	No
Walk In Robe Ma	Plasterboard	Bulk Insulation R5	No
Store	Plasterboard	No insulation	No

Ceiling *penetrations**

Location	Quantity	Type	Diameter (mm^2)	Sealed/unsealed
Ensuite	1	Exhaust Fans	0	Sealed
Ensuite Bed 3	1	Exhaust Fans	0	Sealed
WC	1	Exhaust Fans	0	Sealed
Powder	1	Exhaust Fans	300	Sealed
Ensuite Master	1	Exhaust Fans	300	Sealed

Ceiling *fans*

Location	Quantity	Diameter (mm)
No Data Available		

Roof *type*

Construction	Added insulation (R-value)	Solar absorptance	Roof shade
Concrete	No Insulation, Only an Air Gap	0.85	Dark
Corrugated Iron	Bulk, Reflective Side Down, Anti-glare Up R1.3	0.85	Dark

* Refer to glossary.

Construction	Added insulation (R-value)	Solar absorptance	Roof shade
Waterproofing Membrane	No Insulation, Only an Air Gap	0.85	Dark
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.3	0.85	Dark

Explanatory notes

About this report

A NatHERS rating is a comprehensive, dynamic computer modelling evaluation of a home, using the floorplans, elevations and specifications to estimate an energy load. It addresses the building layout, orientation and fabric (i.e. walls, windows, floors, roofs and ceilings), but does not cover the water or energy use of appliances or energy production of solar panels.

Ratings are based on a unique climate zone where the home is located and are generated using standard assumptions, including occupancy patterns and thermostat settings. The actual energy consumption of a home may vary significantly from the predicted energy load, as the assumptions used in the rating will not match actual usage patterns. For example, the number of occupants and personal heating or cooling preferences will vary.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparing different dwelling designs and to demonstrate that the design meets the energy efficiency requirements in the National Construction Code. Homes that are energy efficient use less energy, are warmer on cool days, cooler on hot days and cost less to run. The higher the star rating the more thermally efficient the dwelling is.

Accredited assessors

To ensure the NatHERS Certificate is of a high quality, always use an accredited or licenced assessor. NatHERS accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

Australian Capital Territory (ACT) licensed assessors may only produce assessments for regulatory purposes using software for which they have a licence endorsement. Licence endorsements can be confirmed on the ACT licensing register

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 ongoing training requirements.

Any questions or concerns about this report should be directed to the assessor in the first instance. If the assessor is unable to address these questions or concerns, the AAO specified on the front of this certificate should be contacted.

Disclaimer

The format of the NatHERS Certificate was developed by the NatHERS Administrator. However the content of each individual certificate is entered and created by the assessor to create a NatHERS Certificate. It is the responsibility of the assessor who prepared this certificate to use NatHERS accredited software correctly and follow the NatHERS Technical Notes to produce a NatHERS Certificate.

The predicted annual energy load in this NatHERS Certificate is an estimate based on an assessment of the building by the assessor. It is not a prediction of actual energy use, but may be used to compare how other buildings are likely to perform when used in a similar way.

Information presented in this report relies on a range of standard assumptions (both embedded in NatHERS accredited software and made by the assessor who prepared this report), including assumptions about occupancy, indoor air temperature and local climate.

Not all assumptions that may have been made by the assessor while using the NatHERS accredited software tool are presented in this report and further details or data files may be available from the assessor.

Glossary

Annual energy load	the predicted amount of energy required for heating and cooling, based on standard occupancy assumptions.
Assessed floor area	the floor area modelled in the software for the purpose of the NatHERS assessment. Note, this may not be consistent with the floor area in the design documents.
Ceiling penetrations	features that require a penetration to the ceiling, including downlights, vents, exhaust fans, rangehoods, chimneys and flues. Excludes fixtures attached to the ceiling with small holes through the ceiling for wiring, e.g. ceiling fans; pendant lights, and heating and cooling ducts.
Conditioned	a zone within a dwelling that is expected to require heating and cooling based on standard occupancy assumptions. In some circumstances it will include garages.
Custom windows	windows listed in NatHERS software that are available on the market in Australia and have a WERS (Window Energy Rating Scheme) rating.
Default windows	windows that are representative of a specific type of window product and whose properties have been derived by statistical methods.
Entrance door	these signify ventilation benefits in the modelling software and must not be modelled as a door when opening to a minimally ventilated corridor in a Class 2 building.
Exposure category – exposed	terrain with no obstructions e.g. flat grazing land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors).
Exposure category – open	terrain with few obstructions at a similar height e.g. grasslands with few well scattered obstructions below 10m, farmland with scattered sheds, lightly vegetated bush blocks, elevated units (e.g. above 3 floors).
Exposure category – suburban	terrain with numerous, closely spaced obstructions below 10m e.g. suburban housing, heavily vegetated bushland areas.
Exposure category – protected	terrain with numerous, closely spaced obstructions over 10 m e.g. city and industrial areas.
Horizontal shading feature	provides shading to the building in the horizontal plane, e.g. eaves, verandahs, pergolas, carports, or overhangs or balconies from upper levels.
National Construction Code (NCC) Class	the NCC groups buildings by their function and use, and assigns a classification code. NatHERS software models NCC Class 1, 2 or 4 buildings and attached Class 10a buildings. Definitions can be found at www.abcb.gov.au.
Opening percentage	the openability percentage or operable (moveable) area of doors or windows that is used in ventilation calculations.
Provisional value	an assumed value that does not represent an actual value. For example, if the wall colour is unspecified in the documentation, a provisional value of 'medium' must be modelled. Acceptable provisional values are outlined in the NatHERS Technical Note and can be found at www.nathers.gov.au
Reflective wrap (also known as foil)	can be applied to walls, roofs and ceilings. When combined with an appropriate airgap and emissivity value, it provides insulative properties.
Roof window	for NatHERS this is typically an operable window (i.e. can be opened), will have a plaster or similar light well if there is an attic space, and generally does not have a diffuser.
Shading device	a device fixed to windows that provides shading e.g. window awnings or screens but excludes eaves.
Shading features	includes neighbouring buildings, fences, and wing walls, but excludes eaves.
Solar heat gain coefficient (SHGC)	the fraction of incident solar radiation admitted through a window, both directly transmitted as well as absorbed and subsequently released inward. SHGC is expressed as a number between 0 and 1. The lower a window's SHGC, the less solar heat it transmits.
Skylight (also known as roof lights)	for NatHERS this is typically a moulded unit with flexible reflective tubing (light well) and a diffuser at ceiling level.
U-value	the rate of heat transfer through a window. The lower the U-value, the better the insulating ability.
Unconditioned	a zone within a dwelling that is assumed to not require heating and cooling based on standard occupancy assumptions.
Vertical shading features	provides shading to the building in the vertical plane and can be parallel or perpendicular to the subject wall/window. Includes privacy screens, other walls in the building (wing walls), fences, other buildings, vegetation (protected or listed heritage trees).