

# Bradford Gold® & Gold Hi-Performance

Refer to product table below for applicable product codes covered by this document

Issue **K**

## Product Type & Application

Bradford Gold® and Gold Hi-Performance (HP) are non-combustible Glasswool thermal insulation products. They are for use in external walls and ceilings to reduce heat transfer through the building envelope.

## Compliance with the NCC

For use in Australia, when correctly specified and installed, this product provides the following compliance:

### NCC 2019

- **Thermal** - Complies with NCC 2019 Volume 1 Amend. 1 Section J1.2(a), NCC 2019 Volume 2 Amend. 1 Section 3.12.1.1(a), and all state-prescribed variations. This product meets the requirements of the NCC through compliance with AS/NZS 4859.1.
- **Non-Combustibility** - Meets the non-combustible requirements of NCC 2019 Volume 1 Amend. 1 C1.9(a) when tested or assessed in accordance with AS 1530.1.
- **Fire Hazard Properties** - Meets the requirements of the NCC 2019 Volume 1 Amend. 1, Specification C1.10 Clause 7 for insulation materials. When assessed to AS/NZS 1530.3 this product does not exceed the 'Spread of Flame' or 'Smoke Developed' indices of Specification C1.10 Clause 7.

### NCC 2022

- **Thermal** - Complies with NCC 2022 Volume 1 J4D3(1) and ABCB Housing Provisions Standard 2022 13.2.2(1). This product meets the requirements of the NCC through compliance with AS/NZS 4859.1.
- **Non-Combustibility** - Meets the non-combustible requirements of NCC 2022 Volume 1 C2D10(1) when tested or assessed in accordance with AS 1530.1.
- **Fire Hazard Properties** - Meets the requirements of the NCC 2022 Volume 1, S7C7 for insulation materials. When assessed to AS/NZS 1530.3 this product does not exceed the 'Spread of Flame' or 'Smoke Developed' indices of Table S7C7.

## Limitations of Use

- **IMPORTANT:** Do Not Modify This Product: Compliance with the evidence of suitability data referenced in this document is only achieved by the product or configuration listed in this PTS.
- **IMPORTANT:** R2.2 (HP), R2.5 (HP), R2.7 (HP) and R4.0 (HP) Wall Batts are high-density products that will not compress during installation and must be installed in a cavity of the correct size, with no obstructions. If installed in a cavity smaller than the product's nominal thickness, there is a risk of deformation or detachment of rigid wall lining materials.
- This product is not suitable for use as an exposed internal wall or ceiling lining in applications which require a Group Number in accordance with AS ISO 9705 and AS 5637.1 (NCC 2019 Volume 1 Amend. 1, Specification C1.10 Clause 4, NCC 2022 Volume 1 S7C4).
- Unfaced Glasswool is not a water or vapour barrier and is not suitable for water or vapour control.
- Maximum service temperature is 150°C for Glasswool.
- Check the plasterboard, ceiling tile or ceiling grid manufacturer's weight limitations prior to increasing the recommended R-Values or densities to ensure the structure can support the additional weight of the insulation batts.

## Conditions of Storage, Use & Maintenance

- Store in the original packaging in a cool, dry area, away from foodstuffs. Ensure packages are adequately labelled, protected from physical damage, and sealed when not in use. Avoid packaging being stored under UV light (direct sunlight) for long periods.

Refer to the product SDS at [Bradfordinsulation.com.au](http://Bradfordinsulation.com.au) for more information.

## Bradford Gold® & Gold® Hi-Performance

### Specific Design or Installation Instructions

- Isolate power before installation.
- **Caution:** Electrical cables and equipment partially or completely surrounded with bulk thermal insulation may overheat and fail. In new build construction with electrical wiring in accordance with AS/NZS 3000: 2018 or later, wiring may be partially or completely surrounded for up to 400mm. If more than 400mm is surrounded, or for wiring pre AS/NZS 3000:2018, seek advice from a licenced electrician. Refer to legislation and referenced standards for full details or seek advice from an electrician if in doubt.
- **IMPORTANT:** R2.2 (HP), R2.5 (HP), R2.7 (HP) and R4.0 (HP) Wall Batts are high-density products that will not compress during installation and must be installed in a cavity of the correct size, with no obstructions. If installed in a cavity smaller than the product's nominal thickness, there is a risk of deformation or detachment of rigid wall lining materials.
- Suitable for applications that specify non-combustible bulk insulation products - not suitable for exposed internal wall and ceiling lining applications that require a Group Number.
- Insulation should be installed so that it forms a continuous layer and abuts or overlaps adjoining insulation other than at supporting members such as columns, studs, noggings, joists, furring channels and the like where the insulation must butt against the member.
- Bulk insulation must be installed so that it maintains its position and thickness, other than where it crosses water pipes, electrical cabling or the like; or roof battens in Class 1 and 10 buildings, cladding and supporting members in Class 2-9 buildings, or where accounted for elsewhere.
- Stated thermal performance is based on bulk insulation only. The effects of thermal bridging and any added reflective R-value contributions are construction dependent and must be determined in accordance with AS/NZS 4859.2.
- Compensate for gaps as specified by the NCC 2019 Volume 2 Amend. 1, 3.12.1.2(e) and Table 3.12.1.1h, ABCB Housing Provisions Standard 2022 13.2.3(5) and Table 13.2.3w. It should be installed at nominal thickness, except where it crosses structures, services and fittings.
- Ceiling perimeter batts may be required to achieve compliance depending upon roof and exterior wall design.
- Suitable for applications where the product is protected from direct UV light, water and wind pressure during and after installation.

**For general installation guidance refer to the product installation guide at [Bradfordinsulation.com.au](http://Bradfordinsulation.com.au)**

**Supplementary information** - Additional installation guidance for this product can be found in AS3999.

### Evidence of Suitability

- Testing to AS/NZS 4859.1 at 23°C across the following reports-
  - CSR Lab Report R-20005.
  - CSR Lab Report R-20006.
  - CSR Lab Report R-20007.
  - CSR Lab Report R-20014.
  - CSR Lab Report R-20017.
  - CSR Lab Report R-20018.
  - CSR Lab Report R-20019.
  - CSR Lab Report R-20020.
  - CSR NATA Lab Report NR-23106.
  - CSR NATA Lab Report NR-23108.
  - BRANZ Report DI11505-001.
  - BRANZ Report DI11505-002.
  - BRANZ Report DI12309-001.
  - BRANZ Report DI13245-001.
- Testing and Professional Assessment to AS 1530.1 across the following reports –
  - CSR NATA Lab Report NR-17008.
  - CSR NATA Lab Report NR-18006.
  - CSR NATA Lab Report NR-18007.
  - CSR NATA Lab Report NR-20003.
  - CSR NATA Lab Report NR-20004.
  - CSR NATA Lab Report NR-22102.
  - CSR NATA Lab Report NR-22103.
  - AWTA NATA Lab Report 23-004681.
  - Warringtonfire Assessment FAS220051.
- Professional Assessment, AS/NZS 1530.3 –
  - Warringtonfire Assessment FAS200045.

## Bradford Gold® & Gold® Hi-Performance

### Applicable Product Codes – Ceiling Products

R-VALUE [m <sup>2</sup> K/W]	THICKNESS [mm]	STANDARD SIZE [mm]	PIECES PER PACK	m <sup>2</sup> PER PACK	COVERAGE PER PACK [m <sup>2</sup> ]	PACKS PER MULTI	PRODUCT CODE
R2.5	140	1160 x 430	16	8.0	9.0	7	111720
R2.5	140	1160 x 580	16	10.8	12.2	7	111719
R3.0	165	1160 x 430	16	8.0	9.0	6	15226
R3.0	165	1160 x 580	16	10.8	12.2	6	15256
R3.5	185	1160 x 430	16	8.0	9.0	5	15241^
R3.5	185	1160 x 580	10	6.7	7.6	8	41895^
R4.1	215	1160 x 430	10	5.0	5.6	7	111716^
R4.1	215	1160 x 580	10	6.7	7.6	7	111715^
#R5.0 (HP)	240	1160 x 430	8	4.0	4.5	5	105417#
R5.0 (HP)	240	1160 x 430	8	4.0	4.5	6	467911
#R5.0 (HP)	240	1160 x 580	8	5.4	6.1	5	105419#
R5.0 (HP)	240	1160 x 580	8	5.4	6.1	6	467912
#R6.0 (HP)	260	1160 x 430	6	3.0	3.4	5	77871#
R6.0 (HP)	260	1160 x 430	6	3.0	3.4	6	467949
#R6.0 (HP)	260	1160 x 580	6	4.0	4.5	5	77849#
R6.0 (HP)	260	1160 x 580	6	4.0	4.5	6	467960
#R7.0 (HP)	290	1160 x 430	4	2.0	2.3	5	122546#
R7.0 (HP)	290	1160 x 430	4	2.0	2.3	6	467961^
#R7.0 (HP)	290	1160 x 580	4	2.7	3.0	5	122545#
R7.0 (HP)	290	1160 x 580	4	2.7	3.0	6	467962^

# Product discontinued December 2022.

^ AS/NZS 1530.3 Test Report available.

Material R-values are determined in accordance with AS/NZS 4859.1 at 23°C and apply to the product installed at nominal thickness.

## Bradford Gold® & Gold® Hi-Performance

### Applicable Product Codes – Wall Products

R-VALUE [m <sup>2</sup> K/W]	THICKNESS [mm]	STANDARD SIZE [mm]	PIECES PER PACK	m <sup>2</sup> PER PACK	COVERAGE PER PACK [m <sup>2</sup> ]	PACKS PER MULTI	PRODUCT CODE
R2.0 (HP)	75	1160 x 420	12	5.8	7.0	6	152166
R2.0 (HP)	75	1160 x 570	12	7.9	9.1	6	152192
R2.0 (HP) *	75	1200 x 450	12	6.5	6.5	6	131367
R2.0 (HP) *	75	1200 x 600	12	8.6	8.6	6	131368
R2.0	90	1160 x 430	22	11.0	12.5	5	15250
R2.0	90	1160 x 580	18	12.1	13.6	6	15229
R2.0 *	90	1200 x 450	18	9.7	9.7	6	127777
R2.0 *	90	1200 x 600	18	12.9	12.9	6	127782
R2.2 (HP)	75	1160 x 420	6	2.9	3.5	6	152168
R2.2 (HP)	75	1160 x 570	6	4.0	4.5	6	152194
R2.2	90	1160 x 430	16	8.0	9.0	5	170351
R2.2	90	1160 x 580	16	10.8	12.2	5	170227
R2.5 (HP)	90	1160 x 420	9	4.4	5.0	6	181430 <sup>^</sup>
R2.5 (HP)	90	1160 x 570	9	6.0	6.7	6	181471 <sup>^</sup>
R2.5 (HP) *	90	1200 x 450	9	4.9	4.9	6	181412 <sup>^</sup>
R2.5 (HP) *	90	1200 x 600	9	6.5	6.5	6	181433 <sup>^</sup>
R2.7 (HP)	90	1160 x 420	5	2.4	2.8	5	152191 <sup>^</sup>
R2.7 (HP)	90	1160 x 570	5	3.3	3.8	5	152197 <sup>^</sup>
R2.7 (HP) *	90	1200 x 450	5	2.7	2.7	5	127780 <sup>^</sup>
R2.7 (HP) *	90	1200 x 600	5	3.6	3.6	5	126512 <sup>^</sup>
R4.0 (HP)	140	1160 x 420	5	2.4	2.8	6	181432 <sup>^</sup>
R4.0 (HP)	140	1160 x 570	5	3.3	3.8	6	181416 <sup>^</sup>

\* Suitable for steel frame construction.

<sup>^</sup> AS/NZS 1530.3 Test Report available.

Material R-values are determined in accordance with AS/NZS 4859.1 at 23°C and apply to the product installed at nominal thickness.

## Bradford Gold® & Gold® Hi-Performance

### Additional Product Data

<b>Maximum Service Temperature</b>		150°C (suitable where a long term surface operating temperature $\geq 90^{\circ}\text{C}$ is required for insulation around heat generating equipment.)
<b>Fire Hazard Properties</b>	When assessed in accordance with AS/NZS 1530 Part 3-1999	• Ignitability: 0 • Spread of flame: 0 • Heat Evolved: 0 • Smoke Developed: 1
<b>Non-Combustibility</b>	When assessed to AS 1530 Part 1	Non - Combustible
<b>Sample Specification – Wall Products</b>	The insulation material shall be Bradford Gold® or Bradford Gold® Hi-Performance having a material R-Value; Rm...(specify R-Value) @ XXmm... (specify thickness).	
<b>Sample Specification – Ceiling Products</b>	The insulation material shall be Bradford Gold® or Bradford Gold® Hi-Performance Ceiling Batts R ___ m2 K/W (specify type) as manufactured by Bradford Insulation.	

### Acoustic Performance

Sound absorption results tested in accordance with AS/ISO 354-2006 [R2016] and NRC and SAA rated using ASTM C423-22. The practical sound absorption coefficient is determined as per AS/ISO 11654-2002 [R2016]. The weighted sound absorption coefficient is determined as per AS/ISO 11654-2002 [R2016].

Flow Resistivity tested in accordance with ASTM C522-03 [R2016].

Product		Practical Sound Absorption Coefficient ( $\alpha_p$ )	Frequency [Hz]						NRC	SAA	Flow Resistivity [Rayl/m]	$\alpha_w$
			125	250	500	1000	2000	4000				
Gold Wall Batts	R2.0 (HP) 75mm	0.30	0.30	0.90	1.00	1.00	1.00	1.00	1.05	1.02	7160	1.00
	R2.0 90mm		0.35	0.80	1.00	1.00	1.00	1.00	0.95	0.96	4833	1.00
	R2.2 (HP) 75mm		0.40	1.00	1.00	1.00	1.00	1.00	1.10	1.09	30360	1.00
	R2.2 90mm		0.45	1.00	1.00	1.00	1.00	1.00	1.10	1.06	5256	1.00
	R2.5 (HP) 90mm		0.45	1.00	1.00	1.00	1.00	1.00	1.10	1.09	10500	1.00
	R2.7 (HP) 90mm		0.60	1.00	1.00	1.00	1.00	1.00	1.15	1.12	21289	1.00
Gold Ceiling Batts	R5.0 (HP) 240mm	0.90	1.00	0.95	1.00	1.00	1.00	1.00	1.01	3133	1.00	
	R7.0 (HP) 290mm	1.00	1.00	1.00	1.00	1.00	1.00	1.05	1.06	4128	1.00	

### Other Accreditation



**FBS-1 Glasswool** - The fibre component of these products is listed by Safe Work Australia as Man-made Vitreous Fibre (Glasswool) of low bio persistence as specified under Note Q in the Australian Hazardous Substances Information System and in the Australian Approved Criteria documentation. In accordance with EU ATP 31 (2009) these fibres are not classified as an irritant, or as carcinogenic. Refer to the product SUIS/MSDS at [Bradfordinsulation.com.au](http://Bradfordinsulation.com.au) for more information.



**National Asthma Council Sensitive Choice**