

Bradford® PIR Boards

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

Issue **C**

Product Type & Application

Bradford® PIR Boards are thermal insulation in a slimline, rigid board profile. Bradford PIR Board's inner core is an advanced thermoset polyisocyanurate (PIR) foam sandwiched between two layers of embossed reflective aluminium foil facings. Bradford PIR Boards are primarily intended for use as a wall and/or ceiling lining in commercial applications.

Compliance with the NCC

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

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.
- **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.
- **Fire Hazard Properties** - Achieves a Group Number of 2 and SMOGR_{RC} ≤ 100 m²/s² x 1000 for all thicknesses, in accordance with AS ISO 9705 and AS 5637.1. It may be used as an exposed wall or ceiling lining where specified by the NCC 2022 Volume 1 S7C4.

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. The product meets the requirements of the NCC through compliance with AS/NZS 4859.1.
- **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.
- **Fire Hazard Properties** - Achieves a Group Number of 2 and SMOGR_{RC} ≤ 100 m²/s² x 1000 for all thicknesses, in accordance with AS ISO 9705 and AS 5637.1. It may be used as an exposed wall or ceiling lining where specified by the NCC 2019 Volume 1 Amend 1. Specification C1.10 Clause 4.

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.
- This material is not classified as non-combustible in accordance with AS1530.1 and is not suitable for use where non-combustible material is required.
- Group number and SMOGR_{RC} ratings only apply when installation requirements under 'Specific Design or Installation Instructions' are met.
- Maximum service temperature is 200°C.
- The foil facing product should not come into contact with wet concrete, or alkaline materials.

Conditions of Storage & 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.
- Do not pressure clean or use mineral based cleaners on the facing product.

Refer to the product SUIS/MSDS at Bradfordinsulation.com.au for more information.

Evidence of Suitability

- Testing to AS/NZS 4859.1 across the following reports -
 - CSIRO Report XC3715/R4a.
 - AWTA Report 19-002613 – *Emission Classification*.
 - AWTA NATA Report 20-003300.
 - AWTA NATA Report 20-003306.
 - Testing and Professional Assessment, AS/NZS 1530.3 -
 - AWTA NATA Report 20-003292 – 40mm Product.
 - AWTA NATA Report 20-003295 – 40mm Product.
 - AWTA NATA Report 20-005378 – 50mm Product.
 - Ignis Assessment IGNS-8332-06 for all thicknesses.
 - Testing and Professional Assessment, AS ISO 9705 and AS 5637.1 –
 - BRANZ Report FI11441-001 – 40mm Product.
 - IGNIS Report IGNL-4182-06 R00 – 60mm Product.
- Ignis Assessment IGNS-8332-05 for all thicknesses.

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Specific Design or Installation Instructions

- Isolate power before installation.
- **WARNING:** This product contains aluminium foil which conducts electricity. To avoid electrocution, care should be taken to ensure that this product or conductive fasteners used to secure this product, do not come into contact or close proximity with electrical wiring during installation or use.
- To maintain the water barrier properties of the facing material it should not be punctured, creased, crushed, sharply folded or dragged over the building structure during installation.
- **Condensation Risk Consideration:** The facing material is classified as a vapour barrier, and when positioned on the cold side of the construction it may increase the risk of condensation entrapment within the structure. As there are many factors which can influence condensation risk it is highly recommended that designers undertake a hygrothermal analysis to further reduce condensation risk.
- **Caution:** Electrical cables and equipment partially or completely surrounded with bulk thermal insulation may overheat and fail.
- 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.
- Stated thermal performance is based on the insulation board only - reflective R-values are construction-dependent upon the adjacent airgap and must be determined in accordance with AS/NZS 4859.2.
- Suitable for applications where the product is protected from direct UV light, water and wind pressure during and after installation.
- For installations requiring Group Number and SMOGRA_{RC} ratings, install as per instructions with plastic insulation fasteners (Powers C5, Hilti or AA) and with taping of joints. Taping to seal exposed edges is recommended.

For general installation guidance refer to the product information on Bradfordinsulation.com.au

Supplementary information - Additional installation guidance for this product can be found in AS 3999.

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Applicable Product Codes

R-VALUE (m ² K/W)	THICKNESS (mm)	NOMINAL LENGTH (m)	NOMINAL WIDTH (mm)	PIECES PER PACK	m ² PER PACK	PRODUCT CODE
R1.05	25	2.4	1200	12	34.56	467850
R1.30	30	2.4	1200	10	28.80	467851
R1.90	40	2.4	1200	7	20.16	467852
R2.35	50	2.4	1200	6	17.28	467853
R2.85	60	2.4	1200	5	14.40	467854

R-values are determined in accordance with AS/NZS 4859.1. The contribution of the reflective air-gap is construction dependant and excluded from the declared R-value. The duty classification of the facing material does not influence the R-value.

Additional Product Data

Maximum Service Temperature		• 200°C
Volatile Organic Compound (VOC) and Formaldehyde Emissions	When tested in accordance with California Specification CA 01350	• VOC <0.01 mg/m ³ • Formaldehyde 6 µg/m ³
Fire Hazard Properties	When assessed in accordance with AS/NZS 1530 Part 3	• Ignitability: 0 • Spread of flame: 0 • Heat Evolved: 0 • Smoke Developed: 0-1
Emissivity	When tested in accordance with ASTM E 408.	≤0.05 (Foil Facing)

Other Accreditation

Red List

Products do not exceed the maximum allowable ingredient limits as defined in the CDPH Standard Method v1.2-2017, and levels provided in SCAQMD Rule 1113 June 3, 2011.
Products meet the requirements of the WELL Specification AE-ES-SPS-003 relating to WELL X11 Long Term Emission Control and WELL X12 Short Term Emission Control.

Declare BDF-0001

(Applies to silver foil faced products only)

Living Building Challenge Compliance: Compliant

I-13 Red List (Declaration Status): LBC Red List Free
I-14 Responsible Sourcing: Not Applicable
I-10 Healthy Interior Performance: CDPH Standard Method V1.2 0 2017