

Anticon® TUFF Roofing Blanket

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

Issue **J**

Product Type & Application

Anticon® TUFF is a Glasswool bulk insulation blanket faced with either a medium or heavy duty Acoustituff® polyweave-reinforced reflective foil laminate adhered to one side. The product is only intended for use as metal roof insulation.

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.
- **Thermal Break** - Meets the requirements of NCC 2022 Volume 1 J3D5(1) and ABCB Housing Provisions Standard 2022 13.2.3(7). When crushed between metal roof sheet and framing members this product provides an R-value of R0.2.
- **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 1 and $SMOGR_{RC} \leq 100 \text{ m}^2/\text{s}^2 \times 1000$ 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.
- **Weatherproofing and Condensation Control** - Facing material only meets the requirements of the NCC 2022 Volume 1 F3D3 and all State-prescribed variations, through compliance with AS/NZS 4200.1.
- **BAL** - All products meet the requirements for sheet roof construction of buildings in bushfire-prone regions BAL 12.5-40, as per AS 3959, sections 5 to 8.

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.
- **Thermal Break** - Meets the requirements of NCC 2019 Volume 1 Amend. 1 J0.4 and NCC 2019 Volume 2 Amend. 1 13.12.1.2(c). When crushed between metal roof sheet and framing members this product provides an R-value of R0.2.

Compliance with the NCC cont. NCC 2019 cont.

- **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 1 and $SMOGR_{RC} \leq 100 \text{ m}^2/\text{s}^2 \times 1000$ 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.
- **Weatherproofing and Condensation Control** - Facing material only meets the requirements of the NCC 2019 Volume 1 Amend. 1 F1.6 and all State-prescribed variations, through compliance with AS/NZS 4200.1.
- **BAL** - All products meet the requirements for sheet roof construction of buildings in bushfire-prone regions BAL 12.5-40, as per AS 3959, sections 5 to 8.

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.
- 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.

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Limitations of Use

- **IMPORTANT:** Compliance with the evidence of suitability data referenced in this document is only achieved when this product is produced at a CSR approved facility, in accordance with CSR specifications and approved materials.
- **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.
- This product does not meet the non-combustibility or fusion temperature requirements of AS 1668.1 – The use of ventilation and air conditioning in buildings, 2.3.2.
- Group number and SMOGRA_{RC} ratings only apply when the installation requirements listed under ‘Specific Design or Installation Instructions’ are met.
- This product is not designed to withstand exposure to the elements and must be installed dry and remain dry until the roof is completed - accordingly, it is recommended that the exterior cladding and all closure flashings should be installed within the same workday to comply with the product warranty.
- It is recommended to commence installation of this product only if it can be completed prior to rain.
- If this product is left exposed, it must be protected from getting wet.
- Maximum service temperature is 150°C for Glasswool, 70°C for facing materials.
- Not suitable for use under tiled roofs.
- This product is not suitable for installation in underslab concrete roof applications within a conditioned space where there is a risk of moisture transfer through the unfaced edges.
- The foil facing product should not come into contact with wet concrete, or alkaline materials.
- This product is not suitable for use within 500m of a saltwater body in an unenclosed, ventilated space.

Refer to the product SDS at Bradfordinsulation.com.au for more information.

Evidence of Suitability

- Testing to AS/NZS 4859.1 at 23°C across the following reports apply to the unfaced blanket -
 - CSR Lab Report R-20024.
 - CSR Lab Report R-20025.
- Testing to AS/NZS 4200.1 across the following reports apply to the **Medium Duty** facing product -
 - AWTa Report 16-005479 – *Resistance to Dry Delamination.*
 - AWTa Report 16-005479 – *Resistance to Wet Delamination.*
 - AWTa Report 16-005479 – *Moisture Shrinkage.*
 - Orora Report 24133 – *Folding Endurance.*
 - AWTa NATA Report 16-005479 – *Tensile Strength.*
 - AWTa NATA Report 16-005479 – *Edge Tearing.*
 - R&D Services Report RD16659 – *Emittance Classification.*
 - CSIRO Report 7790.3 – *Vapour Control Classification.*
 - AWTa Report 16-005479 – *Water Control Classification.*
 - AWTa NATA Report 21-000304 – *Flammability Classification.*
 - CSR Lab Report R-20078 – *Thickness.*
- Testing to AS/NZS 4200.1 across the following reports apply to the Heavy Duty facing product -
 - AWTa Report 20-004835 – *Resistance to Dry Delamination.*
 - AWTa Report 20-004835 – *Resistance to Wet Delamination.*
 - AWTa Report 20-004834 – *Moisture Shrinkage.*
 - Opal Report 26861 – *Folding Endurance.*
 - AWTa NATA Report 20-004835 – *Tensile Strength.*
 - AWTa NATA Report 20-004835 – *Edge Tearing.*
 - AWTa Report 20-004836 – *Emittance Classification.*
 - AWTa NATA Report 20-004835 – *Vapour Control Classification.*
 - AWTa Report 20-004835 – *Water Control Classification.*
 - CSR Lab NATA Report NR-20204 – *Flammability Classification.*
 - CSR Lab Report R-20078 – *Thickness.*
- Professional Assessment, AS ISO 9705 and AS 5637.1 –
 - BRANZ Assessment FC11516.
- Professional Assessment, AS/NZS 1530.3 -
 - Warringtonfire Assessment FAS200045.

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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.
- **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.
- **Condensation Risk Consideration:** The facing material is classified as a vapour barrier and is recommended to be positioned on the warm side of the construction to reduce 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.
- In a roof installation the reflective aluminium side should face inward toward the internal roof cavity.
- 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.
- Suitable for applications where the product is protected from direct UV light, water and wind pressure during and after installation.
- 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.
- To create an air, water, or vapour barrier install in accordance with the NCC and AS 4200.2.
- Improved water control at vertical joints can be achieved by sealing overlaps, end laps, discontinuities and penetrations by suitable means such as heat and moisture resistant adhesive tape with a minimum 50mm overlap.
- **Thermal Break:** Where this product is locally crushed between framing members and roof cladding it will provide a R0.2 thermal break as required by the NCC.
- 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.

Specific Design or Installation Instructions cont.

- 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 the accordance with AS/NZS 4859.2.

For general installation guidance refer to the product installation guide at Bradfordinsulation.com.au

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

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Applicable Product Codes

BASE BLANKET R-VALUE [m ² K/W]	THICKNESS [mm]	NOMINAL LENGTH [m]	NOMINAL WIDTH [mm]	NOMINAL COVERAGE [m ² per Roll]	WEIGHT (kg)	PRODUCT	PRODUCT CODE
MEDIUM DUTY FACING							
R1.3	60	15	1200	18	14.6	Anticon Tuff 60 MD	118077
R1.8	80	15	1200	18	19.7	Anticon Tuff 80 MD	118309
HEAVY DUTY FACING							
R1.3	60	15	1200	18	15.0	Anticon Tuff 60 HD	115773
R1.3	60	20	1200	24	20.1	Anticon Tuff 60 HD	115995
R1.8	80	15	1200	18	20.1	Anticon Tuff 80 HD	121602

Material R-values are determined in accordance with AS/NZS 4859.1 at 23°C. 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	150°C for Glasswool 70°C for facing materials
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Acoustic Performance – Sound from the Foil Side

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 (α_p) and weighted sound absorption coefficient (α_w) are determined as per AS/ISO 11654-2002 [R2016] (ISO 11654-1997).

Product	Thickness [mm]	Practical Sound Absorption Coefficient (α_p)	Frequency [Hz]						NRC	SAA	α_w
			125	250	500	1000	2000	4000			
Anticon Tuff with Medium Duty Facing	Anticon Tuff 60		0.25	0.70	1.00	0.65	0.30	0.20	0.70	0.68	0.35 (LM)
	Anticon Tuff 80		0.40	1.00	1.00	0.55	0.35	0.20	0.70	0.73	0.35 (LM)
Anticon Tuff with Heavy Duty Facing	Anticon Tuff 60		0.35	0.85	1.00	0.55	0.30	0.15	0.65	0.68	0.30 (LM)

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 SDS at Bradfordinsulation.com.au for more information.



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