

# Supertel HVAC Boards

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

Issue **G**

## Product Type & Application

Supertel HVAC Boards are high-density Glasswool insulation. They are available plain (unfaced) or faced with materials of various properties bonded to one side. Supertel HVAC Boards provide thermal resistance and acoustic properties, and are primarily intended for use as internal insulation for HVAC rigid ducts in commercial applications. For the properties of Supertel HVAC Blankets or Soffit Boards, refer to their separate Product Technical Statements.

## 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 S7C5 for Air Handling Ductwork and 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 S7C5 or Table S7C7.

### 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 5 for Air Handling Ductwork and 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 5 or 7.

## 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 SDS at [Bradfordinsulation.com.au](http://Bradfordinsulation.com.au) for more information.

## 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.
- 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 unfaced Glasswool, 70°C for faced Glasswool.
- The foil facing product should not come into contact with wet concrete, or alkaline materials.

## 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.
- Suitable for applications where the product is protected from direct UV light, water and wind pressure during and after installation.
- Stated thermal performance is based on the insulation blanket or board only - reflective R-values are construction-dependent upon the adjacent airgap and must be determined in accordance with AS/NZS4859.2.
- Refer to AS 4254.1 or AS 4254.2 for installation requirements for air handling ductwork.

For general installation guidance refer to the product information on [Bradfordinsulation.com.au](http://Bradfordinsulation.com.au)

## Supertel HVAC Boards

### Evidence of Suitability

- Testing to AS/NZS 4859.1 at 23°C across the following reports apply to the unfaced board -
  - CSR Lab Report R-20012.
  - CSR Lab Report R-20013.
  - CSR Lab Report R-20056.
  - CSR Lab Report R-23002.
  - CSR Lab Report R-23008.
  - CSR NATA Lab Report NR-21113.
- Professional Assessment, AS/NZS 1530.3 -
  - Warringtonfire Assessment FAS200045.
- Professional Assessment, UL 181.11 -
  - Warringtonfire Assessment FAS200051.

### Applicable Product Codes

BASE BOARD R-VALUE [m²K/W]	THICKNESS [mm]	NOMINAL LENGTH [m]	NOMINAL WIDTH [mm]	PIECES PER PACK	m² PER PACK	PRODUCT CODE
<b>PLAIN</b>						
R0.7	25	2.4	1200	10	28.8	15311
R0.7	25	3.0	1500	6	27	77921
R0.7	25	2.4	1500	10	36	15714
R1.2	40	2.4	1200	6	17.2	111256
R1.2	40	2.4	1500	6	21.6	111397
R1.2	40	3.0	1500	5	22.5	111394
R1.5	50	2.4	1200	5	14.4	15332^
R1.5	50	2.4	1500	5	18	15709^
R1.5	50	3.0	1500	3	13.5	77931^
R2.2	75	2.4	1200	3	8.6	15282
R2.2	75	2.4	1500	2	7.2	30493
R3.0	100	2.4	1200	2	5.8	15371
R3.0	100	2.4	1500	2	7.2	17454
<b>BLACK MATT FACING (BMF)</b>						
R0.7	25	2.4	1200	10	28.8	15326
R0.7	25	2.4	1500	10	36	74995
R1.2	40	2.4	1200	6	17.2	455334
R1.2	40	2.4	1500	4	14.4	122684
R1.5	50	2.4	1200	5	14.4	15292
R1.5	50	2.4	1500	5	18	74996
R2.2	75	2.4	1200	3	8.6	15285

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.

^ AS/NZS 1530.3 Test Report available.

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### Applicable Product Codes cont.

BASE BOARD R-VALUE [m <sup>2</sup> K/W]	THICKNESS [mm]	NOMINAL LENGTH [m]	NOMINAL WIDTH [mm]	PIECES PER PACK	m <sup>2</sup> PER PACK	PRODUCT CODE
<b>ACOUSTITUFF® FACING</b>						
R0.7	25	2.4	1200	10	28.8	15676
R0.7	25	2.4	1500	6	21.6	85421
R0.7	25	3.0	1500	6	27	94106
R1.2	40	2.4	1200	6	17.2	112259
R1.2	40	2.4	1500	4	14.4	112282
R1.2	40	3.0	1500	3	13.5	133124
R1.5	50	2.4	1200	5	14.4	16214^
R1.5	50	2.4	1500	3	10.8	30501^
R1.5	50	3.0	1500	3	13.5	94108^
R2.2	75	2.4	1200	3	8.6	97338
R2.2	75	2.4	1500	2	7.2	111108
R2.2	75	3.0	1500	2	9	123553
R3.0	100	2.4	1500	2	7.2	113211
<b>ULTRAPHON FACING</b>						
R1.5	50	2.4	1500	5	18	15496
R2.2	75	2.4	1500	2	7.2	104206
R3.0	100	2.4	1500	2	7.2	104207
<b>HEAVY DUTY PERFORATED FACING (HDP)</b>						
R0.7	25	2.4	1200	10	28.8	15281
R0.7	25	2.4	1500	6	21.6	15276
R0.7	25	3.0	1500	6	27	77922
R1.2	40	2.4	1200	6	17.2	112281
R1.2	40	2.4	1500	4	14.4	111607
R1.2	40	3.0	1500	3	13.5	112023
R1.5	50	2.4	1200	5	14.4	15302^
R1.5	50	2.4	1500	3	10.8	15362^
R1.5	50	3.0	1500	3	13.5	77932^
R2.0	67	2.4	1500	3	10.8	115203
R2.0	67	3.0	1500	2	9	170225
R2.2	75	2.4	1200	3	8.6	15268^
R2.2	75	2.4	1500	2	7.2	88665^
R2.2	75	3.0	1500	2	9	104210^
R3.0	100	2.4	1500	2	7.2	17684^

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.

^ AS/NZS 1530.3 Test Report available.

## Supertel HVAC Boards

### Additional Product Data

<b>Maximum Service Temperature</b>		<ul style="list-style-type: none"> <li>• 150°C for Unfaced Glasswool</li> <li>• 70°C for Faced Glasswool</li> </ul>
<b>Nominal Density</b>		32 kg/m <sup>3</sup>
<b>Volatile Organic Compound (VOC) and Formaldehyde Emissions</b>	When tested in accordance with ASTM D5116	<ul style="list-style-type: none"> <li>• VOC 0.15 mg/m<sup>2</sup>/hr</li> <li>• Formaldehyde 0.03 mg/m<sup>2</sup>/h</li> </ul>
<b>Fire Hazard Properties</b>	When assessed in accordance with AS/NZS 1530.3	<p><b>Plain (Unfaced) Board:</b></p> <ul style="list-style-type: none"> <li>• Ignitability: 0 • Spread of flame: 0</li> <li>• Heat Evolved: 0 • Smoke Developed: 1</li> </ul> <p><b>BMF Faced Board:</b></p> <ul style="list-style-type: none"> <li>• Ignitability: 18 • Spread of flame: 0</li> <li>• Heat Evolved: 0 • Smoke Developed: 3</li> </ul> <p><b>Acoustituff® Faced Board:</b></p> <ul style="list-style-type: none"> <li>• Ignitability: 0 • Spread of flame: 0</li> <li>• Heat Evolved: 0 • Smoke Developed: 1</li> </ul> <p><b>Ultrapphon® Faced Blanket:</b></p> <ul style="list-style-type: none"> <li>• Ignitability: 0 • Spread of flame: 0</li> <li>• Heat Evolved: 0 • Smoke Developed: 3</li> </ul> <p><b>Heavy Duty Perforated Faced Board:</b></p> <ul style="list-style-type: none"> <li>• Ignitability: 0 • Spread of flame: 0</li> <li>• Heat Evolved: 0 • Smoke Developed: 3</li> </ul>
<b>UL-181 Burning Test</b>	Insulation 25-100mm thick was assessed in a representative duct section to UL-181's Burning Test, as an indication of how it will perform when the assembled duct undergoes the test. AS 4254.1 and AS 4254.2 require the full duct assembly to be tested to UL 181. (NCC 2019 Volume 1 Amend. 1, Specification C1.10 Clause 5, NCC 2022 Volume 1 S7C5). Insulation satisfies criteria as an indicative test only – specific testing of the final assembly is necessary for the duct to meet Australian Standard requirements.	

### Acoustic Performance

Sound absorption results tested in accordance with AS/ISO 354-2006 [R2016] and NRC rated using ASTM C423-90A. The practical sound absorption coefficient ( $\alpha_p$ ) and weighted sound absorption coefficient ( $\alpha_w$ ) are determined as per AS/ISO 11654-1997. Flow resistivity tested in accordance with ASTM C522-87; ASTM C522-03 [R2016] for 25mm, 40mm and 50mm Supertel with HDP facing.

Product	Thickness [mm]		Frequency [Hz]						NRC	Flow Resistivity [Ray/m]	$\alpha_w$
			125	250	500	1000	2000	4000			
Plain Supertel (Unfaced)	50mm	Practical Sound Absorption Coefficient ( $\alpha_p$ )	0.2	0.6	1.0	1.0	1.0	1.0	0.95	17300	0.9
	75mm		0.35	1.0	1.0	1.0	1.0	1.0	1.05	19900	1.0
	100mm		0.5	1.0	1.0	1.0	1.0	1.0	1.15	20100	1.0
Supertel with BMF Facing	50mm		0.15	0.55	1.0	1.0	1.0	1.0	0.95		0.85(H)
	75mm		0.35	1.0	1.0	1.0	1.0	1.0	1.05	21700	1.0
Supertel with Acoustituff® Facing	40mm		0.2	0.75	1.0	0.8	0.45	0.25	0.8		0.45(LM)
	50mm		0.25	0.85	1.0	0.9	0.55	0.3	0.85		0.4(LM)
	75mm		0.5	1.0	1.0	0.85	0.55	0.3	0.95		0.5(LM)
	100mm		0.75	1.0	1.0	0.85	0.55	0.3	0.9		0.5(LM)
Supertel with Ultrapphon® Facing	50mm		0.2	0.65	1.0	1.0	1.0	1.0	1.0	23400	0.95
	75mm		0.35	1.0	1.0	1.0	1.0	1.0	1.0	21600	1.0
Supertel with HDP Facing	25mm		0.1	0.3	0.7	0.9	1.0	0.85	0.75	24960	0.6(MH)
	40mm		0.1	0.5	1.0	1.0	1.0	0.9	0.9	32910	0.8
	50mm		0.2	0.75	1.0	1.0	1.0	0.95	1.0	18100	1.0
	75mm		0.4	1.0	1.0	1.0	1.0	0.9	1.10	44600	1.0

## Supertel HVAC Boards

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### 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](http://Bradfordinsulation.com.au) for more information.**