

# Supertel HVAC Boards

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

Issue D, 11/2024

## 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 refer to their separate Product Technical Statement.

## Compliance with the New Zealand Building Code

When correctly specified and installed, this product meets or contributes to compliance with the following performance requirements of the building code:

- **B2 Durability** B2.3.1(a) – Glasswool insulation has a well-established history of use in service.
- **C3 Fire affecting areas beyond the fire source** C3.4(a) - Supertel HVAC Boards have an assigned Group Number of 1-S as provided for in Acceptable Solution C/AS2 Table 4.4 and AS 4254 established by fire hazard properties tested to AS/NZS1530.3 and UL-181.
- **F2 Hazardous building materials** F2.3.1 - Supertel HVAC Boards do not emit or give rise to harmful concentrations of gas, liquid, radiation or solid particles.
- **H1 Energy Efficiency** H1.3.6 - Supertel HVAC Boards have been tested to AS/NZS 4859.1 and products 40mm thick and above meet the minimum insulation R-values specified in Verification Method H1/VM3 Table 5.2.1.1.

## 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.

## 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 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.co.nz](http://bradfordinsulation.co.nz)

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

## Basis of Compliance

- Testing to AS/NZS 4859.1 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-23003.
  - CSR NATA Lab Report NR-21113.
- Professional Assessment, AS/NZS 1530.3 –
  - Warringtonfire Assessment FAS200045.
- Professional Assessment, UL-181 –
  - Warringtonfire Assessment FAS200051.
- C/AS2 Acceptable Solution for Buildings other than Risk Group SH for New Zealand Building Code Clauses C1-C6 Protection from Fire First edition (Amendment 3), 2 November 2023.
- H1 Energy Efficiency, Verification Method H1/VM3, Energy efficiency of HVAC systems in commercial buildings, First edition, 29 November 2021.
- Bradford SDS CSR-SHE-Glasswool Issued 24<sup>th</sup> September 2024.

## Supertel HVAC Boards

### 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.
- 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 wall or ceiling lining in applications which require a Group Number in accordance with building code clause C3.4(a).
- 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.
- This product is not subject to any warning or ban declared by MBIE under section 26 of the Building Act 2004.

### Applicable Product Codes

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>PLAIN</b>						
R0.7	25	2.4	1200	10	28.8	15311
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
R1.5	50	2.4	1200	5	14.4	15332
R1.5	50	2.4	1500	5	18	15709
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

## Supertel HVAC Boards

### 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>BLACK MATT FACING (BMF)</b>						
R0.7	25	2.4	1200	10	28.8	15326
R0.7	25	2.4	1500	10	36	74995
R1.5	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
R3.0	100	2.4	1200	2	5.7	18884
<b>MEDIUM DUTY FACING (MD)</b>						
R1.5	50	2.4	1200	5	14.4	43326
<b>HEAVY DUTY FACING (HD)</b>						
R0.7	25	2.4	1200	10	28.8	17560
R0.7	25	2.4	1500	6	21.6	30502
R1.5	50	2.4	1200	5	14.4	17563
R1.5	50	2.4	1500	3	18	27723
R2.2	75	2.4	1200	3	8.6	27364
R3.0	100	2.4	1200	2	5.7	79151
<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
R1.2	40	2.4	1200	6	17.2	112281
R1.2	40	2.4	1500	4	14.4	111607
R1.5	50	2.4	1200	5	14.4	15302
R1.5	50	2.4	1500	3	10.8	15362
R2.2	75	2.4	1200	3	8.6	15268
R2.2	75	2.4	1500	2	7.2	88665
R3.0	100	2.4	1200	2	5.7	17763

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.

## Supertel HVAC Boards

### Additional Product Data

<b>Maximum Service Temperature</b>	• 150°C for Unfaced Glasswool • 70°C for Faced Glasswool	
<b>Volatile Organic Compound (VOC) and Formaldehyde Emissions</b>	When tested in accordance with ASTM D5116  • VOC 0.15 mg/m <sup>2</sup> /hr • Formaldehyde 0.03 mg/m <sup>2</sup> /h	
<b>Fire Hazard Properties</b>	When assessed in accordance with AS/NZS 1530.3  <b>Plain (Unfaced) Board:</b> • Ignitability: 0 • Spread of flame: 0 • Heat Evolved: 0 • Smoke Developed: 1 <b>BMF Faced Board:</b> • Ignitability: 18 • Spread of flame: 0 • Heat Evolved: 0 • Smoke Developed: 3 <b>Medium Duty Faced Board:</b> • Ignitability: 0 • Spread of flame: 0 • Heat Evolved: 0 • Smoke Developed: 0-1 <b>Heavy Duty Faced Board:</b> • Ignitability: 0 • Spread of flame: 0 • Heat Evolved: 0 • Smoke Developed: 0-1 <b>Heavy Duty Perforated Faced Board:</b> • Ignitability: 0 • Spread of flame: 0 • Heat Evolved: 0 • Smoke Developed: 3	
<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. Insulation satisfies criteria as an indicative test only – specific testing of the final assembly is necessary for the duct to meet Australian Standards requirements.	

### Acoustic Performance

Sound absorption results tested in accordance with AS/ISO 354-2006 and NRC rated using ASTM C423-90A. Flow Resistivity tested in accordance with ASTM C522-87.

Product	Thickness (mm)	Practical Sound Absorption Coefficient ( $\alpha_p$ )	Frequency (Hz)						NRC	Flow Resistivity (Rayl/m)	$\alpha_w$
			125	250	500	1000	2000	4000			
Plain	50mm		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 HDP Facing	25mm		0.1	0.3	0.7	0.9	1.0	0.85	0.75		0.6(MH)
	40mm		0.1	0.5	1.0	1.0	1.0	0.9	0.9		0.8
	50mm		0.2	0.75	1.0	1.0	1.0	0.95	1.0		1.0
	75mm		0.4	1.0	1.0	1.0	1.0	0.9	1.10	44600	1.0

The practical sound absorption coefficient is determined as per AS/ISO 11654-1997.

The weighted sound absorption coefficient is determined as per AS/ISO 11654-1997.

## Supertel HVAC Boards

### 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.