

# Ultratel HVAC Boards

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

Issue **D, 11/2024**

## Product Type & Application

Ultratel is a high density Glasswool board. It provides thermal resistance, acoustic properties; and is available with or without facing materials. Ultratel is primarily intended for use as insulation for HVAC silencers and internal duct lining for commercial applications.

## 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) - Ultratel 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 - Ultratel HVAC Boards do not emit or give rise to harmful concentrations of gas, liquid, radiation or solid particles.
- **H1 Energy Efficiency** H1.3.6 - Ultratel HVAC Boards have been tested to AS/NZS 4859.1 50, 75 and 100mm Boards meet the minimum insulation R-values specified in Verification Method H1/VM3 Table 5.2.1.1.

## 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 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 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/NZS 4859.2.
- 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)

## Basis of Compliance

- Testing to AS/NZS 4859.1 across the following reports apply to the unfaced board -
  - CSR Lab Report R-20061.
  - CSR Lab Report R-20062.
  - CSR Lab Report R-20063.
  - CSR Lab Report R-20064.
- 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.

## Ultratel 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.
- These products are 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

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>						
R0.75	25	2.4	1200	6	17.3	15324
R0.75	25	2.4	1500	5	18	15272
R1.5	50	2.4	1200	3	8.6	15278
R1.5	50	2.4	1500	3	10.8	42905
R2.3	75	2.4	1200	2	5.7	68919
R3.0	100	2.4	1200	2	5.7	41906
<b>BLACK MATT FACING (BMF)</b>						
R0.75	25	2.4	1200	6	17.3	15277
R0.75	25	2.4	1500	5	18	43277
R1.5	50	2.4	1200	3	8.6	15298
R1.5	50	2.4	1500	3	10.8	43278
R2.3	75	2.4	1200	3	8.6	15499
R3.0	100	2.4	1200	2	5.7	15303
<b>HEAVY DUTY FACING (HD)</b>						
R0.75	25	2.4	1200	6	17.3	18995
R1.5	50	2.4	1200	3	8.6	94411

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## Ultratel HVAC Boards

### Applicable Product Codes cont.

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>HEAVY DUTY PERFORATED FACING (HDP)</b>						
R0.75	25	2.4	1200	6	17.3	15267
R0.75	25	2.4	1500	4	14.4	15284
R1.5	50	2.4	1200	3	8.6	15286
R1.5	50	2.4	1500	3	10.8	83776
R2.3	75	2.4	1200	2	5.7	77951
R3.0	100	2.4	1200	2	5.7	28865

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

<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>Volatile Organic Compound (VOC) and Formaldehyde Emissions</b>	When tested in accordance with ASTM D5116	<ul style="list-style-type: none"> <li>• VOC 0.5 mg/m<sup>2</sup>/hr</li> <li>• Formaldehyde 0.2 mg/m<sup>2</sup>/h</li> </ul>
<b>Fire Hazard Properties</b>	When assessed in accordance with AS/NZS 1530.3	<p><b>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>Heavy Duty Faced Board:</b></p> <ul style="list-style-type: none"> <li>• Ignitability: 0 • Spread of flame: 0</li> <li>• Heat Evolved: 0 • Smoke Developed: 0-1</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. Insulation satisfies criteria as an indicative test only – specific testing of the final assembly is necessary for the duct to meet Australian Standards requirements.	

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## Ultratel HVAC Boards

### 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			
Ultratel with HD Perforated Facing	50mm		0.2	0.7	1.0	1.0	1.0	1.0	1.05	37500	1.0
	75mm		0.4	1.0	1.0	1.0	1.0	0.95	1.10		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.

### 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.