

## MASONS INTERTENANCY WALL SYSTEM

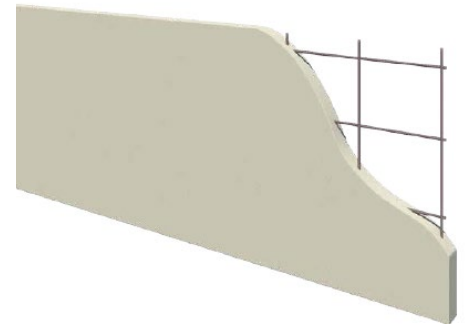
### PURPOSE

Mason NZ Ltd supplies the Masons Intertency Wall system for use as an acoustic and fire rated intertenancy wall. The system incorporates plasterboard, timber or steel framing, mineral wool insulation, and Masons Enviro™ AAC panel, which is an autoclaved aerated concrete panel (AAC).

### EXPLANATION

The Masons Enviro™ AAC panel is a 50 mm thick AAC panel, manufactured from cement, sand, lime and water and aerated by the addition of an expanding agent. Soft blocks are moulded using the mixture and then sliced into the required panel size and cured in a steam pressure autoclave for up to 12 hours.

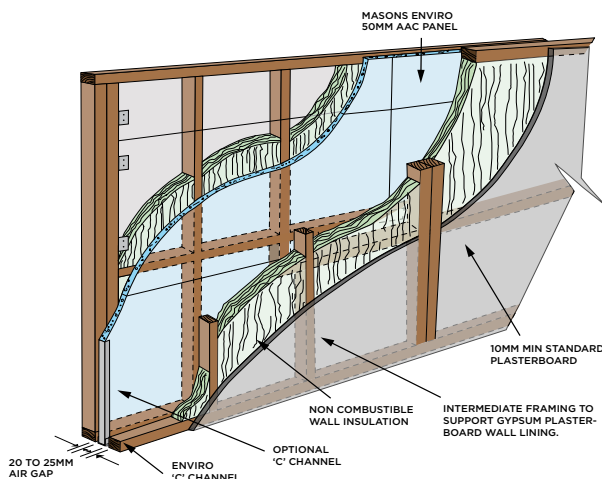
The Masons Intertency Wall system has a fire rating of 120/120/120 for timber framing and -/90/90 for steel framing and an estimated laboratory acoustic STC performance of 64 dB and 55 dB respectively. Where timber framing and lightweight steel framing is used aluminium angle brackets are added to both sides of the Mason's Enviro panel to the framing on both sides. As the aluminium angle brackets on the fire side melt, the Enviro panel is disconnected from the collapsing structure and is supported by the clips and the structure on the protected side for the 120 minute fire rating period.



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#### MASONS ENVIRO AAC INTERTENCY WALL SYSTEM



The Masons Intertency Wall system is an intertenancy acoustic or fire wall system comprising:

- 10 mm thick standard plasterboard
- Framing (timber or lightweight steel) to NZS3604: 2011 or Nash Standard part 2: 2019 or SED
- 20 - 25 mm air gap
- 75 mm R2.0, non-combustible moisture-resistant, non-corrosive, mildew proof insulation. Where acoustic performance required a minimum density of 9kg/m³ applies
- 50 mm Masons Enviro™ AAC panel
- 75 mm R2.0, non-combustible moisture-resistant, non-corrosive, mildew proof insulation
- 20 mm minimum air gap
- base Enviro C-Channel and Enviro Aluminium fire brackets
- wafer head, type 17, 10g x 35 mm fasteners
- Gorilla Soudal Firecryl acrylic sealant.

### SCOPE AND LIMITATIONS OF USE

Scope	Limitations
<b>Location</b>	
All design wind pressure (ULS)	➤ Maximum design ULS determined by primary structure.
All seismic zones	➤ Maximum design ULS determined by primary structure.
<b>Building</b>	
In conjunction with timber or lightweight steel primary structure that complies with the Building Code or where the designer and/or installer have established the structure is suitable for the intended building work.	➤ Intermediate studs must be at a maximum of 600 mm centres.
In conjunction with protected timber, concrete or masonry/strip footing.	➤ Connections of the studs at each floor level must meet the requirements of NZS 3604:2011 or NASH Standard Part 2.
Up to a building height of 10 m.	➤ The maximum storey height is limited to 3 m.
As an intertenancy wall system.	➤ Brackets and fixings must be the designated screw fixings and Enviro aluminium fire brackets as supplied by Masons and specified and installed in accordance with the Masons Enviro 50 mm AAC Intertency Wall System Installation Guide.
	➤ Maximum 1 m cantilever for parapets is allowable.
	➤ Wingwalls are subject to specific engineering design.
	➤ Penetrations are subject to specific fire engineering design. Electrical outlets/taps may penetrate the plasterboard lining but must be offset by minimum of 300 mm.

### USEFUL INFORMATION

For design, installation and maintenance information, refer to [mpb.co.nz](http://mpb.co.nz).



## PERFORMANCE CLAIMS

If designed, installed and maintained in accordance with all Masons NZ Ltd requirements, the Masons Intertenancy Wall system will comply with or contribute to compliance with the following performance claims:

NZ Building Code clauses	Compliance statement	BASIS OF COMPLIANCE Demonstrated by
<b>B1 Structure</b> B1.3.1, B1.3.2, B1.3.3 (a, b, c, f, i, j, m, q), B1.3.4 (a, b, c, d, e)	ALTERNATIVE SOLUTION	<ul style="list-style-type: none"> <li>Material properties of panel to AS/NZS 4456.9 (650 kg/m<sup>3</sup> ambient density), AS 5146.2 (dry density 495 kg/m<sup>3</sup> and compressive strength 2.8 MPa, flexural strength 1.07 MPa), AS/NZS 4456.14 (69 % cold water absorption) [Masons, 11/2021].</li> <li>Design in accordance with NZS1170.0 and Clause C6 based on NZS 3604:2011/ NASH Standard Part 2 and Masons Enviro 50 mm AAC Intertenancy Wall System Installation Guide [Silvester/Clark, 21/11/2024].</li> <li>Meets structural performance requirements of AS/NZS 1170.0 2002 for face load ACC panel and tension and compression of Masons brackets [BRANZ, 07/10/2024].</li> <li>Meets the post fire stability requirements of NZS1170.0 clause 4.2.4 [Silvester/Clark 21/11/2024].</li> </ul>
<b>B2 Durability</b> B2.3.1, B2.3.2 (a)	ALTERNATIVE SOLUTION	<ul style="list-style-type: none"> <li>Material properties of panel to AS/NZS 4456.9 (650 kg/m<sup>3</sup> ambient density), AS 5146.2 (dry density 495 kg/m<sup>3</sup> and compressive strength 2.8 MPa, flexural strength 1.07 MPa), AS/NZS 4456.14 (69 % cold water absorption) [Masons, 11/2021].</li> </ul>
<b>C3 Fire Affecting Areas Beyond the Source</b> C3.4 (a), C3.6 <b>C6 Structural Stability</b> C6.2, C6.4	ACCEPTABLE SOLUTION C/AS1, C/AS2	<ul style="list-style-type: none"> <li>Achieves 120/120/120 with timber frame, tested to AS 1530.4 [Fire TS Laboratory, 09/01/2024]. Achieves -/90/90 with steel frame, tested to AS 1530.4 [Fire TS Laboratory, 12/04/2023].</li> <li>Aluminium angle brackets melt on the fire side.</li> </ul>
<b>F2 Hazardous Building Materials</b> F2.3.1	ALTERNATIVE SOLUTION	<ul style="list-style-type: none"> <li>Masons Enviro™ AAC panels are preformed and do not emit harmful materials in finished form. Use of panels in accordance with manufacturer's safety and use instructions.</li> </ul>
<b>G6 Airborne and impact sound</b> G6.3.1	VERIFICATION METHOD G6/VM1	<ul style="list-style-type: none"> <li>Expert opinion – Masons Intertenancy Wall System (timber and steel framing) achieves estimated laboratory STC of 64 dB [Marshall Day Acoustics, 23/03/2021].</li> </ul>

## SOURCES OF INFORMATION

- Marshall Day Acoustics. [23/03/2021] *Masons' Enviro™ AAC Panel Sound Insulation Opinion*. Rp 001 20200796.
- Fire TS Laboratory. [09/01/2024] *Fire Resistance tests for non-loadbearing vertical separating element-wall*. Test Report #PF23085.
- Masons. [02/2023] *Masons Enviro AAC panel as used in Masons Intertenancy Wall system*. V1.1.
- Masons. [07/2024] *Masons Enviro 50 mm AAC Intertenancy Wall System Installation Guide*. V3.2.
- Fire TS Laboratory. [12/04/2023] *Fire Resistance test for non-loadbearing vertical separating element-wall*. Test Report #AR23025.
- Silvester Clark Consulting. [21/11/2024] *Re Structural Design Statement*. Masons Enviro 50mm AAC Intertenancy Wall System. Ref 26334.
- BRANZ. [07/10/2024] *Structures Test Report ST18425-03-01*. Compression and Tension Testing of Masons Bracket & Bending Test of Masons AAC Intertenancy Wall Panel.

1. Where a standard is referenced it is to be read as amended by the acceptable solution or verification method as applicable. 2. Sources of information also include the Building Act 2004 and its regulations, including the Building Code (Schedule 1 of the Building Regulations 1992), Acceptable Solutions and Verification Methods, and relevant cited standards. 3. The product is not subject to a warning or ban under section 26 of the Building Act. 4. For overseas manufacturer details, where applicable, refer to the company that is the holder of this pass™. 5. The quality and assurance that the supplied products meet the performance claims stated in this pass™ are the responsibility of the company that is the holder of this pass™. 6. The availability of the information about the supplied products required to be disclosed under s14G(3) is the responsibility of the company that is the holder of this pass™.

Mason NZ Ltd confirms that if Intertenancy Wall system is used in accordance with the requirements of this pass™ the product will comply with the NZ Building Code and other performance claims set out in this pass™ and the company has met all of its obligations under s14G(2) of the Building Act.

**Date of first issue:** 26/11/2021

**Date of current issue:** 19/12/2024

**NZBN:** 9429051703653



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[mpb.co.nz](http://mpb.co.nz)



*Kevin Brunton*

Kevin Brunton, Technical Director, TBB confirms that the process used to prepare this pass™ on behalf of Mason NZ Ltd has been undertaken in accordance with MBIE PTS guidelines and in accordance with the TBB pass™ process which is within the scope of TBB's ISO 9001 certification.

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