

# MASONS PLASTABRICK INTERTENANCY WALL SYSTEM

## PURPOSE

Mason Plastabrick 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).

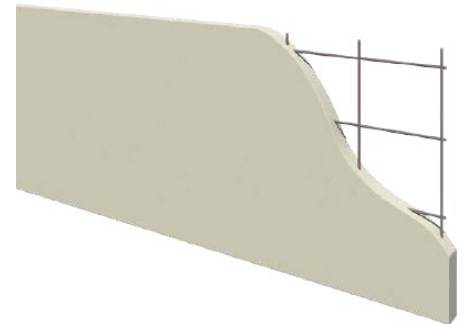
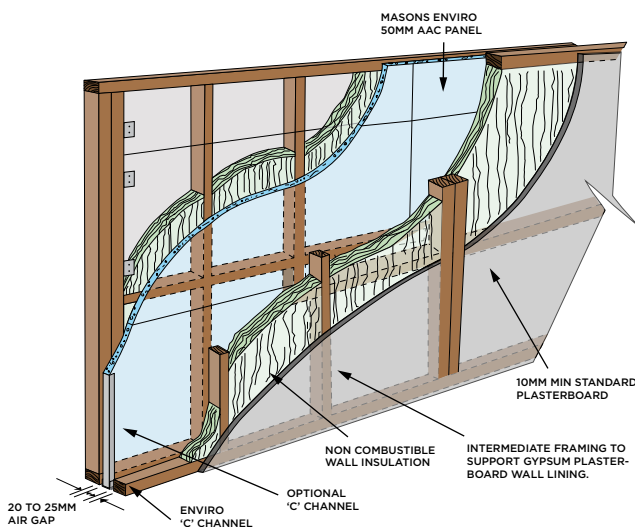
## EXPLANATION

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 for timber frame and -/90/90 for steel frame 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.

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

### MASONS ENVIRO AAC INTERTENANCY WALL SYSTEM



For further assistance please contact:

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## NOTE

- Framing (timber or lightweight steel) to NZS3604: 2011 or Nash Standard part 2: 2019 or SED
- 75 mm R2.0, non-combustible moisture-resistant, non-corrosive, mildew proof insulation. Where acoustic performance required a minimum density of 9kg/m<sup>3</sup> applies
- 50 mm Masons Enviro™ AAC panel
- Aluminium angle brackets.

## SCOPE AND LIMITATIONS OF USE

Scope	Limitations
<b>Location</b> All design wind pressure (ULS) All seismic zones	➤ Maximum design ULS determined by primary structure. ➤ 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. In conjunction with protected timber, concrete or masonry/strip footing. Up to a building height of 10 m. As an intertenancy wall system.	➤ Panels must not be suspended from the structural frame. ➤ If used as a structural wall, the system is subject to specific engineering design. ➤ Maximum panel height of 9 m. ➤ Penetrations are subject to specific fire engineering design. ➤ Electrical outlets and taps may penetrate the plasterboard lining but must be offset from each other by a minimum of 300 mm. ➤ If used as a structural wall, the system is subject to specific engineering design.

## USEFUL INFORMATION

For information on the design, installation and maintenance of the Masons Intertency Wall System and for our warranty refer to [www.mpb.co.nz](http://www.mpb.co.nz).



## PERFORMANCE CLAIMS

If designed, installed and maintained in accordance with all Masons Plastabrick 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 Masons Enviro™ AAC 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</li> <li>(69 % cold water absorption) [Mason Plastabrick, 11/2021].</li> <li>Structural Design Statement of suitability to NZS1170.0 or NZS3603, taking into consideration NZS3604 or Nash Standard Part 2 [Silvester/Clark, 27/01/2023].</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 Masons Enviro™ AAC 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</li> <li>(69 % cold water absorption) [Mason Plastabrick, 11/2021].</li> </ul>
<b>C3 Fire Affecting Areas Beyond the Source</b> C3.4 (a), C3.6	ACCEPTABLE SOLUTION C/AS1, C/AS2	<ul style="list-style-type: none"> <li>Achieves -/120/120 with timber frame, tested to AS 1530.4 [FireLab, 05/10/2022].</li> <li>Achieves -/90/90 with steel frame, tested to AS 1530.4 [FireLab, 12/04/2023].</li> <li>Aluminium angle brackets melt on the fire side.</li> </ul>
<b>C6 Structural Stability</b> C6.2, C6.4		
<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 [Mason Plastabrick, 02/2023].</li> </ul>
<b>G6 Airborne and impact sound</b> G6.3.1		<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.
- FireTSLab. [05/10/2022] *Fire Resistance tests for non-loadbearing vertical separating element-wall*. Test Report #PF22049.
- Mason Plastabrick. [02/2023] Masons ENVIRO AAC panel as used in Masons Inter Tenancy Wall system.
- FireTSLab. [12/04/2023] *Fire Resistance test for non-loadbearing vertical separating element-wall*. Test Report #AR23025.
- Silvester/Clark Consulting. [27/01/2023] *Masons Enviro ACC intertenancy wall system, Structural Design Statement*.

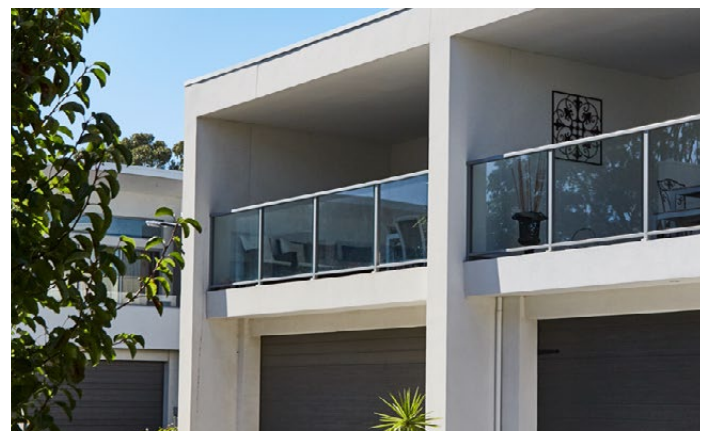
- Where a standard is referenced it is to be read as amended by the acceptable solution or verification method as applicable.
- Sources of information also include the Building Act 2004 and its regulations, including the Building Code (Schedule 1 of the Building Regulations 1992), Acceptable Solutions and Verification Methods, and relevant cited standards.
- 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™.
- Where E2/AS1 is referenced it is to be read as including E2/AS4.

Mason Plastabrick Ltd confirms that if Intertenancy Wall system is used in accordance with the requirements of this pass™ the product will comply with the Building Code and other performance claims set out in this pass™ and the company has met all of its obligations under s14 G of the Building Act.

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

**Date of current issue:** 10/05/2023

**NZBN:** 9429031171090



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



*Kevin Brunton*

Kevin Brunton, Technical Director, TBB confirms that this pass has been prepared on behalf of Masons Plasterbrick and 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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