MASONS INTERTENANCY WALL SYSTEM

DESIGN GUIDE



V1.1 November 2021

General and product information

PURPOSE

This guide relates to the design of the Masons Intertenancy Wall System.

IMPORTANT DOCUMENTS

This guide must be read in conjunction with:

- Masons Intertenancy Wall System pass™
- Masons Intertenancy Wall System Specification Guide
- > the relevant Masons Intertenancy Wall System details
- Masons Intertenancy Wall System Installation Guide
- Masons Intertenancy Wall System Warranty.

SKILLS REQUIRED

This guide is suitable for use by a designer who is a licensed building practitioner licensed to the relevant class or deemed LBP.

FOR MORE HELP

Technical assistance is available at www.mpb.co.nz.

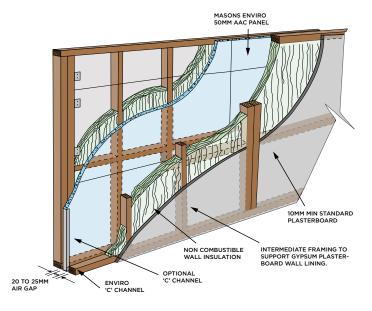
While all reasonable efforts have been made to ensure the accuracy of information provided, this guide is a guide only. It may be subject to change.

FOR OUR WARRANTY

Refer to www.mpb.co.nz.

PRODUCT DESCRIPTION

The Masons Intertenancy Wall System is an intertenancy acoustic and fire wall system:



NOTE

- > 90 mm timber framing or 92 mm steel framing
- > 75 mm R2.0, noncombustible moistureresistant, non-corrosive, mildew proof insulation. Where acoustic performance required a minimum density of 9kg/m³ applies.
- > 50 mm Masons Enviro™ AAC panel



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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 Intertenancy Wall System has a fire rating of 90/90/90 and estimated laboratory acoustic STC performance of 64 dB where timber framing and lightweight steel framing is used.

SCOPE AND LIMITATIONS

For scope of use, limitations, conditions and statement of building code compliance, refer to the Masons Intertenancy Wall System pass™.



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Design

The steps required to design and specify the system are described in this guide.

Links to Masons Intertenancy Wall System details that are to be included on the relevant plan sheet are provided. It is intended that the details are placed on the relevant plan sheet for easy reference on-site.

STEP 1:

CONFIRM SCOPE

Confirm the proposed use is within the scope and limitations of the pass TM .

STEP 2:

CONFIRM RELATED BUILDING WORK

Confirm the primary structure (not including the Masons Intertenancy Wall System):

- > complies with the NZ Building Code and is designed in accordance with NZS 3604:2011; or NASH Standard Parts 1 and 2:2019; or is specifically designed in accordance with AS/NZS 1170:2002, NZS 3603:2003, or NZS 3404:1997; or
- is suitable for the intended building work, if the building is an existing building.

STEP 3:

SELECT FRAMING AND FIXINGS FOR THE MASONS INTERTENANCY WALL SYSTEM

The Masons Intertenancy Wall System can be designed with timber or lightweight steel framing.

Select the type of framing to be used.

Timber studs must be 90 mm deep. Use Table 8.2 of NZS 3604:2011 to determine stud spacing. Specify fixings in accordance with NZS 3604:2011.

Steel framing must be 92 mm deep. Use NASH Standard Parts 1 and 2:2019 to determine stud spacings and fixings for equivalent stiffness as specified in NZS 3604:2011 for timber-framed buildings.

Alternatively, specifically design the stud spacings and fixings in accordance with NZS 3603:2003, NZS 3404:1997 or AS/NZS 1170:2002. Ensure stud depth is 90 mm thick for timber and 92 mm thick for steel-framed walls.

STEP 4:

DETAIL THE MASONS INTERTENANCY WALL SYSTEM

Mark the location of the Masons Intertenancy Wall System on plans showing framing, air gap and Masons Enviro™ AAC panel as a minimum.

Select insulation and plasterboard products to be used. Insulation for the wall must be R2.0, non-combustible, moisture-resistant, mineral wool, fibreglass or polyester insulation. Plasterboard must be 10 mm thick. Insulation for the top of the wall must be noncombustible, moisture-resistant, mineral wool insulation.



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Specify building services back-to-back of the Masons Enviro™ AAC panel. Identify on the plans where proprietary fire-stopping is required. Include specific fire engineering where necessary.

Specify building services and detail any passive fire rating requirements. Whilst services may be run in the air gap between the Enviro™ AAC panel and the framing they must not touch the Enviro[™] panel or framing as this will reduce the STC rating.

Penetrations are only permitted where subject to specific fire engineering design.

Ensure a minimum air gap of 20 mm is allowed for and clearly shown on the applicable plan sheets.

Select the relevant Masons Intertenancy Wall System details and insert on the relevant plan sheet. [link]

QUALITY CHECK STEP 5:

Confirm all relevant design requirements are met.

Complete the Masons Intertenancy Wall System Specification. This forms part of the construction contract as well as the building consent documentation; accuracy and completeness are crucial.

Check that each plan sheet includes all relevant details.

Confirm the building consent plans and specifications clearly define and include:

- > all relevant installation details
- framing sizes and fixings
- panel numbers and accessories
- > insulation and plasterboard products.

Collate the following documents and include them in the building consent application:

- Masons Intertenancy Wall System pass™
- Masons Intertenancy Wall System Specification Guide
- > the relevant Masons Intertenancy Wall System details
- > Masons Intertenancy Wall System Installation Guide
- Masons Intertenancy Wall System Warranty.



