



Trent Mason Director, Masons NZ Ltd

In New Zealand, our rich history is marked by a strong tradition of innovation and accomplishment. Masons embodies this ethos, founded on the principle of elevating the quality of New Zealand's building products through a commitment to innovation and resourceful thinking.

Since being established in 1999, Masons has become a key supplier in the New Zealand building industry, offering a variety of quality systems and products for a whole range of building requirements.

Masons offers an extensive range of exterior building products from the frame out.

#### THE MASONS PRODUCT RANGE CONSISTS OF:

- 1. High performance pliable wall and roof underlays, rigid air barrier and a self-adhesive weather resistive barrier.
- 2. Innovative UNI range of temporary weather protection Flexible Air Barriers driving building productivity and increased secondary defense
- 3. Enviro cladding, flooring, and Intertenancy Wall Systems based on our Enviro AAC panel
- 4. Construction hardware and acessories including the Masons/Redway E2 range of cavity closers and flashings.
- **5.** Masonry veneer ties and reinforcement products.

The Masons full product collection can be found at: mpb.co.nz



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The information, and, in particular, the recommendations relating to the application and use of Masons products are given in good faith based on Masons current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Masons recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Masons reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned. Copies are available on our website mpb.co.nz

## **UNI Flexible Air Barrier System**

**UNI PLUS & UNI PRO** 





STAY ON TRACK WITH YOUR
BUILD If cladding is delayed



TEMPORARY WEATHER AND UV PROTECTION

For up to 90 days (UNI PLUS) or 150 days (UNI PRO)



**QUICK AND EASY TO INSTALL**Full Masons support with
videos and training

## KEEP CONSTRUCTION MOVING WITH UNI PLUS AND UNI PRO FLEXIBLE AIR BARRIERS

Wasted time on construction schedules, escalating costs, and the impact of inflation are major factors contributing to the rise in project expenses. Therefore, maintaining adherence to timelines has become increasingly crucial for construction projects.

By installing a UNI Flexible Air Barrier, you get at least 90 and up to 150 days of rain and UV protection for unclad framing. Interior and exterior trades can work in parallel to speed up programmes.

Once installed, these heavy-duty Flexible Air Barriers are an excellent second line of defence – they are vapour permeable, allowing moisture vapour to pass out of the building envelope for the life of the building.



No more Hold-ups if Cladding is Delayed



A Secondary Line of Defence Against Moisture



Very Thick, Strong and Tear Resistant



Easy to Install.
Full Training
Available



A Fraction of the Cost of Rigid Air Barriers

## A STRONGER STRUCTURE BRINGS MULTIPLE BENEFITS

UNI PLUS and UNI PRO are nonwoven synthetic wall underlays. Thicker and stronger than conventional building wrap materials, UNI's multiple-ply structure is a barrier to both air and water, while still allowing water vapour to diffuse creating a drier, more comfortable environment inside and a more effective cladding system.

## NEW ZEALAND BUILDING CODE STANDARD (NZBC)

If designed, installed and maintained in accordance with our requirements, all UNI Flexible Air Barriers meet or exceed the requirements of the NZBC absorbency performance requirement, as per NZS 2295:2006.

#### **APPLICATIONS**

- Suitable for commercial and residential construction, timber or steel framing and can be used with all cladding systems.
- Strong and durable and suitable for all areas of New Zealand including up to 'Extra High' wind zones of NZS 3604 using a specific fixing method. (See UNI Installation Instructions document on our website).
- Suitable as a non rigid backing for stucco plaster.
- Suitable as an air barrier on walls that are not lined, including gable ends.
- UNI PLUS is fire retardant under New Zealand standards for flexible wall underlays and may be used without restrictions.

## CHOOSE THE CORRECT FLEXIBLE AIR BARRIER FOR YOUR BUILD

	UNI PLUS	UNI PRO
UV Resistance	90 days	150 days
Fire retardancy	Yes	No
Colour of substrate	Blue external / white internal	Blue external / white internal
Roll Size	1.5m x 33.33m = 50m <sup>2</sup> 2.74m x 18.25m = 50m <sup>2</sup>	2.74m x 18.25m = 50m <sup>2</sup>
CodeMark	CMNZ70116	CMNZ70117









## **PASS (PRODUCT ASSURANCE SUPPLIER** STATEMENT)

Visit the TBB website: thebuildingbusiness.co.nz

for the latest information.

## **CodeMark**>>>

CMNZ70116 (UNI PLUS), CMNZ70117 (UNI PRO)

All UNI Flexible Air Barriers are CodeMarked.

Visit the MBIE website: building.govt.nz for the latest information.

## **EASY INSTALLATION PLUS ALL ACCESSORIES**

Masons is committed to supporting builders with their first time use of UNI Flexible Air Barriers. The following resources are available:

- Training videos in English and with Chinese subtitles
- Detailed printable Installation instructions in both English and Chinese
- · Pre-inspection checklists
- On-site training when appropriate



For documentation, visit our website: mpb.co.nz



For installation videos check out our Masons YouTube

## **UNI INSTALLATION ACCESSORIES**

#### **CN100 UNI CAP NAILER GUN**

#### Best Practice to Fix UNI to the Frame

This gun shoots plastic caps with a 25mm ring shanked nail, and increases the holding power of the wrap.

Nails available separately as galvanised or stainless steel.

A 90-100 PSI Air Compressor is also required



## **UNI® FASTENERS**

#### For Timber Frames

For use with a hammer. Available as a 32mm galvanised or stainless steel nail.

### **UNI® FASTENERS**

#### For Steel Frames

For use with an appropriate driver. 32mm galvanised screw with washer pack.



#### 40 BELOW PLATINUM AND 40 BELOW FLEX Flashing Tapes

Excellent adhesion in all weather conditions from -10°C to 40°C. No primers or heat guns required.

40 BELOW PLATINUM: Superb adhesion. Aggressive and dependable. Silver facer for water resistance. Ultra thin - no build-up in corners.

40 BELOW FLEX: Our most advanced flashing tape. Cutting edge adhesive. Ultra thin - no build-up in corners. Nail and screw sealable with just one layer.



#### **BRICKTIES**

#### **Heavy Duty Earthquake**

Manufactured to comply with AS/NZS2699.1.2000.

Available in 90, 110 and 135mm lengths galvanised, and stainless steel.

Medium Duty Brickties also available.



## **PENETRATION SEALS**

#### For Pipe Penetrations

Air seal flashings designed for cavity construction where pipes or wires penetrate the air barrier. Available sizes:

1-75mm and 80-170mm.



## **CORNER GUARDS**

## For Windows

To use with the installation of all Masons 40 Below Flashing Tapes.

Stainless Steel 2,000 for use with gun

Available in pack of 10 or 50.



UNINAILPACKSS

## **PEF BACKING ROD**

#### Joint Filler

A cylindrical flexible closed cell polyethylene material.

Available in multiple diameters from 6mm to 20mm.



Product Description	Masons Code
UNI PRO 2.74m x 18.25m = 50m <sup>2</sup>	UNIPRO2.74X50
UNI PLUS 2.74m x 18.25m = 50m <sup>2</sup>	UNIPLUS2.74X50
UNI PLUS 1.5m x 33.33m = 50m <sup>2</sup>	UNIPLUS1.5X50
UNI Fasteners Galv Nail and Washer 32mm QTY 2500 (for use with hammer)	UNIFASTGN
UNI Fasteners Stainless Steel Nail & Washer 32mm QTY 2500 (for use with hammer)	UNIFASTSS2500
UNI Fasteners. Bucket of collated screws for Stainless Steel frames. QTY 1500	UNIFASTSTLFRAME
UNI Cap Nailer Gun	UNICAPNAILER
UNI Nail Washer Pack for UNI Gun QTY 2000 Galv for use with Gun	UNINAILPACK
UNI Nail Washer Pack for UNI Gun.	I INIINI A II DA CIZS

Product Description	Masons Code
40 Below Platinum Flashing Tape 150mm x 20Lm, 75mm x 20Lm, 60mm x 20Lm	40PLBELOW150x20 40PLBELOW75x20 40PLBELOW60x20
40 Below Flex Flashing Tape 150mm x 20Lm, 75mm x 20Lm	40FLXBELOW150x20 40FLXBELOW75x20
Penetration Seal - 1-75mm Pack of 10	PSEAL75
Penetration Seal - 80-170mm Pack of 10	PSEAL170
BrickTies - various sizes - Galv & Stainless	visit: mpb.co.nz
PEF Rod - various sizes from 6mm to 20mm diameter	visit: mpb.co.nz
Corner Guards - 50 pack	HYDROCG50

# **Barricade Weather Defense System**

A weather-resistive rigid air barrier system



A premium weather-resistive rigid air barrier system for residential and commercial buildings.

three-part system, comprising Masons' 6mm and 9mm fibre cement panels, Barricade Weather Defense self-adhesive weather-resistive barrier wrap, and

The rigid underlay, covered with our water, air and UV resistant self-adhesive wrap, allows construction work to get started inside the building. Interior and exterior

trades can work in parallel to speed up programmes, while protecting the building from weather whilst there is no cladding in place.

All the benefits of a modern synthetic wall underlay - highly water, air and UV resistant - with all the best attributes of rigid wall underlay - wind and earthquake bracing units and 30-minute fire resistance rating for walls within a metre of the boundary, as tested by BRANZ.

#### **STRENGTH**

#### Wind and earthquake bracing units

The Barricade Weather Defense system is suitable for all wind zones in New Zealand\*, depending on wall heights. When nailed according to installation instructions, fibre cement contributes bracing units to the structure and stiffens the framing for reduced strain and damage to plasterboard linings.

#### **ROBUST**

Masons Barricade Weather Defense brings the techniques and benefits of commercial construction to residential projects. It gives specifiers and builders a hybrid system with the benefits of a rigid air barrier for site security and lockup, and a modern synthetic weather-resistive barrier wrap for construction continuity and long-term envelope performance.

#### CONTINUITY

#### Multiple teams can work in parallel

With a UV rating of up to 150 days, the interior teams can start even when there is a delay on cladding. Programme and sequencing flexibility means interior trades can carry on their work inside the weatherprotected building before cladding is installed. And the project can be locked up securely every night to help prevent theft and vandalism.

## **COHESIVE**

Barricade Weather Defense is a two-layer system - the 6 and 9 mm fibre cement board is fastened to the building framing, then a heavy, self-adhesive building wrap is applied, providing full coverage of all fixings and panel joints. This forms a weather-resistive barrier that does not require Z flashings or tape at joints. A single layer of Masons 40 Below Flex flashing tape is used around frame openings. Use Masons Penetration Seals and selfadhesive PVC foam or Butyl sealing tapes for any penetrations to complete the assembly.

Masons Barricade Weather Defense is a flashing tapes for openings.

Masons Barricade Weather Defense contributes to the building moisture management design. It provides a substantial secondary defense against intrusion of moisture and air for the life of the building.





If cladding is delayed

**UP TO 150** 

**TEMPORARY WEATHER** 

PROTECTION

For up to 150 days

STRONG

Suitable for all wind zones\*

## **ROBUST AND SECURE**

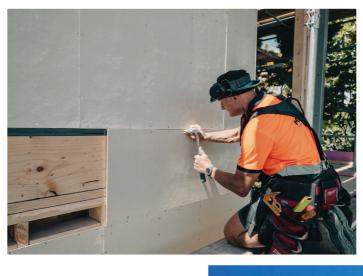
Plus EQ and wind bracing units

\* Check with your structural engineer re SED wind zones



#### TYPICAL APPLICATIONS

Residential homes, terrace houses, apartments, aged-care facilities, commercial buildings.







#### **EXTRA RESOURCES**

To understand the system and its installation, please find CAD files, 3D animated models, a bracing calculator, and other support information on our Barricade Weather Defense System page on our website: **mpb.co.nz.** Or scan this QR Code to take you there.



## BARRICADE WD SELF-ADHESIVE WRAP



**UV & WEATHER PROTECTION** Pre-Cladding



BREATHABLE Passes Water Vapour Out



**HIGHLY WATER RESISTANT** 



ADVANCED POLY-ACRYLIC ADHESIVE



Suitable for all Wind Zones



To Cold Air and Moisture



Barricade WD may be used separately as a self-adhesive, weather resistive barrier over various rigid substrates or underlays.

It may be applied to dry, clean substrates in temperatures from -10 to +50°C.

See our Barricade WD Technical Data Sheet for details: mpb.co.nz. Or scan this QR Code to take you there.



## THE BARRICADE WEATHER DEFENSE SYSTEM COMPONENTS

#### **FIBRE CEMENT SHEETS**

Autoclaved, asbestos free, 6mm and 9mm fibre cement boards. The sheets are installed as a non-combustible rigid wall underlay.



## **BARRICADE WD SELF-ADHESIVE WRAP**

A three-layer polypropylene self-adhesive flexible wall underlay. Thermally bonded outer spunbonded layers to an inner layer of microporous poly propylene film. Then coated with pressure sensitive pure poly-acrylic adhesive to give superior adhesion to a variety of typical materials.



## **PENETRATION SEALS**

Air seal flashings designed for cavity construction where pipes or wires penetrate building cladding.



## **40 BELOW FLEX FLASHING TAPE**

Self-adhesive flashing tape to seal around windows, doors, and other joinery openings.



Use a scraper to assist adhesion

#### **SEALANTS AND FOAMS**

Fire rated wall sections use HILTI CP 606 - As per BRANZ testing. Soudall Sealants and Expanding Foams as tested by Soudall\*.

#### **TAPES**

PVC foam tape, or Butyl self adhesive 3.2 or 4.8mm thick sealing tape.

## **CLOUTS**

40mm x 2.8 gauge Stainless Steel.

#### **PRIMER**

Barricade WD porous surface primer.

#### **FIXINGS**

Masons Barricade Weather Defense Fibre Cement Sheets may be fixed using an Ecko Hammahand Pneumatic weatherboard coil-nailer WB75, firing Ecko Hammahand 60, or 65mm ring shanked round head nails, in either Stainless Steel or HD Galvanised.

Component	Masons Code
Fibre Cement Sheet 2.4m x 1.2m x 6mm	BWD6MMx2.4x1.2
Fibre Cement Sheet 3m x 1.2m x 6mm	BWD6MMx3.0x1.2
Fibre Cement Sheet 2.4m x 1.2m x 9mm	BWD9mm2.4x1.2
Fibre Cement Sheet 3m x 1.2m x 9mm	BWD9mm3.0x1.2
Barricade WD Self-Adhesive Wrap 1.46m x 34.1m = 50m2	BWDSA
40 Below Flex Flashing Tape 75mm, 100mm, 150mm or 230mm x 20Lm	40FLXBELOW75x20 /100x20 /150x20 /230x20
Stainless Steel Clout 40mm x 2.8 Guage	EX FASTENING SUPPLIER
Penetration Seal 1-75mm or 80-170mm	PSEAL75w/PSEAL170
PVC foam tape	EX TAPE SPEC NZ
Butyl Self-Adhesive tape	EX TAPE SPEC NZ
HILTI CP 606 Fire Stop Acrylic Sealant	EX HILTI NZ
Soudal Expanding Foams	EX MASONS
Soudal Sealants**	SOUDAL OUTLETS NZ WIDE
Barricade WD Porous surface primer 1L	PRIMERILTR
Barricade WD Porous surface primer 5L	PRIMER5LTR

<sup>\*</sup> See list of compatible Soudal Sealants and Foams - mpb.co.nz

# **Enviro™ AAC Exterior Cladding System**



Strong and lightweight with superior noise reduction





Masons Enviro cladding system is comprised of 50mm Enviro AAC panels mortared together and screwed to the building frame over cavity battens. Enviro uPVC flashing weatherproofs the joinery openings and provide air flow and drainage to cavity whilst excluding vermin.

Over this solid and weather proofed substrate, several layers of Masons Enviro plaster - render reinforced with synthetic mesh are applied, before finishing with layers of high build acrylic paint.

The result is a beautiful and timeless look of traditional rendered masonry, combined with the performance of light weight concrete panel, protected by the drained cavity and well proven flashings.

Enviro panels are autoclaved aerated concrete (AAC), with steel reinforcing through the centre. Air cells in the concrete absorb and reduce noise, making interior spaces quieter to live and work in. With its high thermal mass, Enviro helps keep buildings cool in summer and warm in winter.

Panel dimensions: 2200mm x 600mm

Thickness: 50mm



## **TYPICAL APPLICATIONS**

Residential, multi-unit residential, and light commercial builds.



## BENEFITS OF THE ENVIRO PANEL CLADDING SYSTEM

#### WEIGHT

#### A strong, lightweight cladding system

With a working density of 650 kg/m³, Enviro panels are about one-fourth the density of concrete, whilst retaining 50% of typical concrete strength. Panels are easy to cut and quick to install for cost-effective cavitybased construction. The Enviro cladding system is suitable for all seismic and wind loadings around New Zealand when installed in accordance with the manufacturer's instructions.

## **ACOUSTICS**

#### **Superior noise reduction**

Enviro panels are effective at absorbing noise, attaining an STL of 33dB for 1000Hz. The porous structure, combined with the panel's mass, dampens mechanical vibration energy and sound, assisting with acoustic privacy and quiet spaces inside homes and offices.

#### **THERMAL**

#### Suitable for NZ's climate

The porous structure of Enviro provides an R-value of R .416, superior to that of some other masonry substrates. Although this must be derated by .45 for the cavity air gap, this rating helps the designer achieve a higher wall thermal performance, making the system suitable for New Zealand climate zones from the warm north to the cool south.

#### **CLEAN AIR**

#### Low environmental impact

Enviro panels are extremely energy-efficient in production, with no pollutants created during manufacturing. The inert material is non-hazardous and does not emit harmful gases or vapours. All waste product at point of manufacture is recycled back into the production process. Mineral plaster at a thickness of 1-3mm is applied after panel installation.

#### **WATER MANAGEMENT**

#### Flashing and cavity systems

To prevent water from entering, the Enviro Panel Cladding System comes with a complete flashing system for windows and doors. If water should penetrate, Enviro has a ventilated cavity system to allow moisture to dry out and weep holes for water to drain out.

## **MATERIAL PROPERTIES**

Working density with steel	650kg/m³
Compressive strength	4.0 Mpa
Structural properties	> 800 N - 1750 N as tested
Dry shrinkage value	0.8mm/m
Water absorption (by volume)	Up to 24-35%
Thermal conductivity	0.12 w/mk or R .416 (50mm Enviro), reduce by .45 for ventilated cavity – air gap
Sound transmission loss (STL)	33dB for 1000Hz
Fire	Grade A1 Non-combustible GB 8624-2006



## **PLASTER FINISHES**

#### **MINERAL OR ACRYLIC PLASTER?**

Mineral plaster is very traditional, typically 2-3 thin layers is skilfully built up before a texture - finishing plaster coat is applied, polish floated off or sponged up - your choice.

Enviro mineral plasters are always coated with a lime stop sealer coat followed by two high build premium acrylic paint coats\*.

Mineral plaster is an affordable and beautiful choice.

Acrylic plasters or renders use modern polymer technology resulting to create flexible and water-resistant plasters.

Masons FLX render is typically applied in 2 coats reinforced with mesh, before a pre tinted finishing or texture coat is applied. Finally, one heavy, or two regular coats of high build premium acrylic paint coat is carefully applied\*.

Using Masons FLX will cost more, but the superior crack and water resistance of FLX are well worth it. Recommended where regular maintenance is difficult or costly (scaffold).

All Masons Enviro panel and plaster systems are reinforced with synthetic mesh.

Paint should be premium high build elastomeric acrylic paint.

The Masons Enviro panel and plaster cladding system is applied by skilled LPB plasterers and is covered by a 15 year materials warranty. The applicator covers their workmanship for 5 years.

The Masons Enviro cladding system has a Codemark certificate of conformity.

This demonstrates compliance with the NZ building code and commitment to quality via the MBIE administered Codemark scheme.



# **Enviro™ AAC Floor System**

A strong, quiet and thermally comfortable flooring system



A solid yet lightweight floor panel, Enviro provides a solid, premium feeling underfoot. Compared with timber-based flooring products, Enviro helps create quieter and thermally comfortable interiors.

Enviro panels are autoclaved aerated concrete (AAC), with steel reinforcing through the centre. Air cells in the concrete absorb and reduce noise, making interior spaces far quieter to live and work in when compared with timber-based alternatives. With its high thermal mass, Enviro helps balance indoor temperatures, absorbing heat and then releasing it as a building cools down.

Panel dimensions: 2200mm x 600mm

Thickness: 75mm

Working Density: 650kg/m³, about ½ that of 'standard' concrete\*

\*Standard' concrete estimated at 2400 KG per m<sup>3</sup> for comparison purposes.

## **TYPICAL APPLICATIONS**

Residential and light commercial builds.



<sup>\*</sup>Paint colours used should have a light reflective value of 25 or higher (lighter).



## BENEFITS OF THE ENVIRO AAC PANEL FLOOR SYSTEM

#### **WEIGHT**

#### Strong and lightweight

Enviro has many of the features of a solid concrete floor, but without the weight for handling or loads on the structure. With a working density of 650kg/m³, it's approximately one-fourth of the weight of concrete, while retaining 50% of its strength. Fitted over timber or steel joists, the span tables offer KPA floor load solutions for homes and offices. Self-levelling floor topping may be used to complete the installation or when the floor covering requires it.

## **EFFICIENT**

#### Simple to install

The Enviro Panel Floor System can be installed quickly and efficiently by screwing and glue-fixing each panel to the floor framing, using galvanised bugle screws for timber framing or dual-grip hex-head screws for steel framing. Panels are then mortared together with Masons Enviro ACC glue mortar or bonded with construction adhesive, creating a continuous lightweight masonry floor. The panel sizes may require a slightly different joist set-out than timberbased products to enjoy the full benefits of the system.

#### **ACOUSTICS**

#### **Reducing sound between floors**

Enviro panels are effective at absorbing noise and reducing sound transmission between floors, with an STL rating of 35dB for 1000Hz. The porous structure provides sound absorption, along with mechanical vibration energy dampening to reduce sound travel between rooms.

#### **THERMAL**

#### Suitable for the local climate

The porous structure of Enviro ACC panels gives a superior R-value rating compared to some other masonry substrates. This means AAC panels provide a good level of thermal mass, helping to even out temperature fluctuations.

#### **CLEAN**

#### Low environmental impact

The Enviro Panel Floor System is energyefficient, with no harmful pollutants produced during manufacturing. Its inert material is non-hazardous and does not emit harmful gases or vapours. All waste product at point of manufacture is recycled back into the production process.

## **MATERIAL PROPERTIES**

Working density with steel	>650 kg/m³
Compressive strength	4.0 Mpa
Structural properties	>1750 N
Dry shrinkage value	0.3-0.5mm/m
Water absorption (by volume)	Up to 24-35%
Thermal conductivity	0.12 w/mk or R .625 (75mm)
Sound transmission loss (STL)	35dB for 1000Hz (see STC chart)
Fire properties	Non-combustible

Note: Masons Enviro Panel Floor System has not been tested or rated as an intertenancy fire solution.

#### SOUND PERFORMANCE

#### Estimated performance of 75mm Enviro AAC panel with various mid-floor assemblies

STC	sound transmission class	a minimum of 55 is required by the NZ Building Code
IIC	impact insulation class	a minimum of 55 is required by the NZ Building Code

The designer's material choices and floor section design make a large contribution to a quiet floor between stories or tenancies. It is best to design to exceed the required minimums as acoustic performance can sometimes be derated in situ.

## Enviro 75mm panels over 240mm timber joists IIC 73 STC 56

Cut pile carpet (12mm)

Chip foam underlay (8mm)

#### 75mm Enviro AAC Panel

75mm thick absorptive blanket in cavity

240mm timber joists

Resilient mounts (e.g., GIB Rondo with ST001 Acoustic mount) and furring channels10mm thick standard plasterboard

## 75mm Enviro - 240mm IIC 43 STC 55

Timber joists - no floor covering - now ceiling separation or additional mass.

No floor covering

#### 75mm Enviro AAC Panel

75mm thick absorptive blanket in cavity

240mm timber joists

Resilient mounts (e.g., GIB Rondo with ST001 Acoustic mount) and furring channels

10mm thick standard plasterboard

#### **DESIGN NOTES**

Additional material selection is required to achieve IIC. Adding mass and separation to the ceiling such as double layers of Gib or suspending the ceiling using a proprietary ceiling mount system, correct use of acoustic sealant and/or addition of a sound-absorbing insulation in the floor cavity will be required. Selection of an acoustic underlay for hard flooring may also be helpful.

## **INSTALLATION**

The Enviro AAC Panel Floor System may be readily installed by building teams or plaster and panel contractors at the client's discretion. \*\*

## SEE THE MASONS WEBSITE FOR THE **FOLLOWING RESOURCES:**

- Enviro Floor Design and Installation Guide
- Design and Specification Guidance
- · CAD drawings/standard details
- · A take-off service
- A PS1



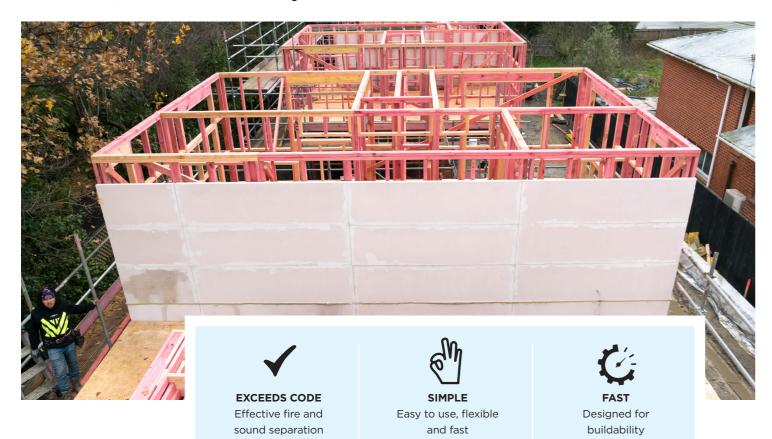
<sup>\*\*</sup> Installation should be supervised by an LPB builder or plasterer



# **Enviro AAC Intertenancy Wall System**



Acoustic, fire-rated wall system



The Masons Intertenancy Wall System is based on our Enviro AAC (autoclaved aerated concrete) panels - a dense yet lightweight material with proven acoustic and fire-resistant performance.

The system is easy to work with, giving builders workflow flexibility and construction efficiencies. It is fully NZBC compliant for both fire resistance (FRR) and sound transmission (STC).

#### **RELIABLE MATERIALS**

#### The Enviro™ AAC panel

The Masons Enviro AAC Intertenancy Wall System is a secondary building element, based on Masons Enviro AAC panel - a 50 mm thick panel.

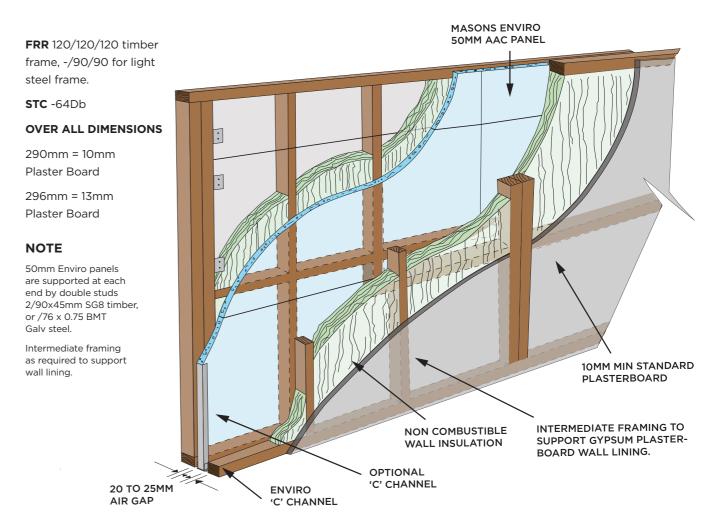
It is manufactured from cement, sand, lime and water which is aerated with an expanding agent. Soft blocks are moulded from the mixture and then sliced into the required panel size and cured in a steam pressure autoclave for up to 12 hours.

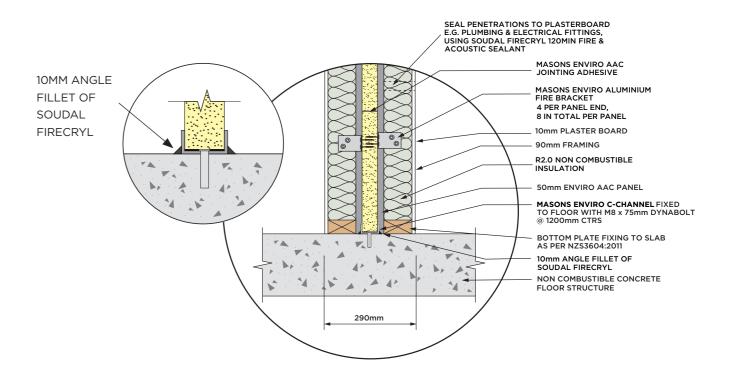


#### **TYPICAL APPLICATIONS**

Multi-unit residential, terrace houses, apartments, aged-care facilities and light commercial builds.

## **Enviro AAC Intertenancy Wall System**





## **EXCEEDS MIN REQUIREMENTS**

#### **Fully FRR and STC compliant**

This system meets and/or exceeds the New Zealand Building Code's minimum requirements for both fire resistance rating and sound transmission class. It scored a rating of 120/120/120\* for walls up to 10m high. Acoustic engineers Marshall Day reported a lab performance of 64 dB - higher than the minimum STC requirement of 55 dB for intertenancy walls.

Structures or building elements with a fire resistance rating are intended to separate people in the building from fire and allow time for a safe escape.

#### SIMPLE

## Easy to use, flexible and fast

The Masons system is construction friendly and designed for simplicity and flexibility. As few as two builders can install the system, and installation can be flowed around other work on-site. No weather protection is needed for the AAC panels when work stops, making on-site storage simple. The horizontal stack construction minimises cutting and waste.

Masons Intertenancy Wall has a FRR of 120/120/120\* making it suitable for a variety of building uses including where more time is needed for safer fire evacuation.

A higher FRR will more effectively retard fire allowing fire fighters more time to attend and effect less damage to adjacent tenancies.

## **FAST**

#### Designed for buildability

The system can be installed up to three stories continuously, without interruption, and there is often no need for extra accessories or fiddly work at mid-floors junctions. Services can be run down the framing on either side of the AAC panels, and materials be carried in smaller parts when site access is difficult.\*\* The ACC system is easier for everyone on the job.

\* FRR performance for light steel framing is lower FRR -/90/90

\*\*Penetrations to the Masons Intertenancy Wall System: fire and acoustic must be engineered for fire rating and to preserve acoustic performance and installed by suitably qualified persons.



## THE 'KIT OF PARTS' MAKING UP THE MASONS INTERTENANCY WALL SYSTEM

#### **COMPONENTS SUPPLIED BY MASONS**

Enviro™ 50mm AAC Panel and Enviro™ C Channel and Fire Brackets			
ENVPAN	50mm Enviro AAC Panel 2200mm x 600mm		
CCHANNEL	Galvanised Steel C-Channel 3048mm long (35x51x35)		
RANGLEBKT	Aluminium Bracket 75mm x 45mm x 50mm		
Fixings			
IT-SR17HWF12353 OR	10g - 11 x 35 Woodscrew <b>box 1000</b> (timber framing)		
IT-SHWF12353	10g - 11 x 20mm min self drillers <b>bag 100</b> (steel framing)		
Fire seal void filler			
MINWOOL50	Mineral Wool Insulation 50mm x 1200mm x 600mm		
Fire and acoustic seale	r		
FIRECRYL310	Firecryl Sealant Acrylic Sealant 310ml White		
FIRECRYL310	Firecryl Sealant Acrylic Sealant 600ml Grey		
Panel mortar			
PBEJG25kg	Enviro Panel Jointing Glue 25kg		

## **COMPONENTS SUPPLIED BY OTHERS**

#### Wall insulation

Non combustible insulation such as glass fibre batts of equivalent R2.0 minimum

#### Framing

Structural framing - Double - 2/90 x 45 mm SG8 timber studs at 2.2 m centres or double - 2/76mm x 0.75BMT steel studs

Intermediate framing - as required to support gypsum board wall lining

Cold Galv spray to seal cut ends of steel reinforcing in Enviro panel

C Channel fastener

M8 x 75mm Dyna Bolts

## PERFORMANCE

Secondary Building Elements designed to separate and protect people from the effects of fire typically require an FRR of -/30/30 or -/60/60.

Sound Transmission Class (STC) is a measure of permissible sound transmission between adjoining tenancies through a vertical wall. An STC of 55 is the minimum. The higher the STC the less the sound transmission.

The Masons Intertenancy Wall system has a Fire Resistance Rating of 120/120/120 for timber frame and -/90/90 for light steel frame with an estimated laboratory acoustic Sound Transmission Class (STC) performance of 64 dB. Masons Enviro Aluminium fire brackets on both sides of the Enviro 50 mm AAC panel connect to the framing. As the Enviro Fire brackets on the fire attack side

melt, the Enviro panel is disconnected from the collapsing structure and is supported by the Fire Brackets and the structure on the side insulated and protected of the Intertenancy wall.

The support framing of the Masons Enviro 50 mm AAC Intertenancywall framing as per the details provided has been reviewed and designed for post fire stability. Refer to Enviro 50 mm AAC Intertenancy wall details

The loads and details for stair wells and mid-floor junctions adjacent to the Enviro Intertenancy wall should be checked and designed by the building designers.

The building designers or structural engineer should also check the Intertennacy wall framing meets the required framing loads and bracing requirements for the building.

#### **COMPLIANCE**

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:

**B1 STRUCTURE** B1.3.1, B1.3.2, B1.3.3 (a, b, c, f, i, j, m, g), B1.3.4 (a, b, c, d, e)

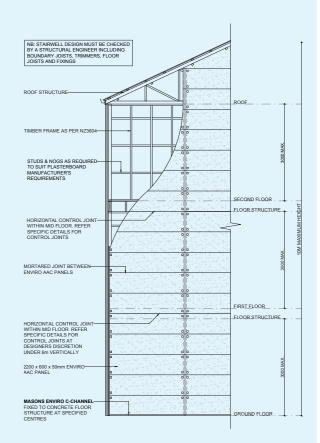
**B2 DURABILITY** B2.3.1, B2.3.2 (a)

**C3 FIRE AFFECTING AREAS BEYOND THE FIRE SOURCE C3.4** (a), C3.6

**C6 STRUCTURAL STABILITY** C6.1, C6.2, C6.4

**F2 HAZARDOUS BUILDING MATERIALS** F2.3.1

**G6 AIRBORNE AND IMPACT SOUND** G6.3.1



Refer to the Enviro 50mm Intertenancy wall details and installation instructions.

Notes	









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